A COMPARATIVE STUDY TO ASSESS THE EFFECTIVENESS OF BETADINE SITZ BATH VERSUS NEEM EXTRACT SITZBATH ON EPISIOTOMY WOUND HEALING AMONG POST NATAL MOTHERS IN KASTURBA HOSPITAL AT DINDUGAL.

MRS. MUTHUMARI.C

REG.NO.301220853

M.SC., NURSING II YEAR

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. M. G. R. MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

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APPROVED BY THE DISSERTATION COMMITTEE ON : …..……

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(2012--2014)

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Certified bonafide project work

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College Seal:

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OCTOBER 2012-2014

ACKNOWLEDGEMENT

Glory to God Almighty who is the source of strength, foundation of knowledge, source of inspiration in every walk of my life and sustaining me in the completion of this study.

I extend my heart full of thanks and gratitude to the **Management, Sara College of Nursing** for providing me an opportunity to undergo to uplift my professional life.

With deep sense of gratitude, I express my sincere thanks to our beloved **Principal, Prof.Mrs. Ihdhirani M.Sc(N)** Sara college of Nursing for her expert guidance, thoughts, comments, valuable suggestions, constant encouragement and support throughout the period of study.

I express my heart felt thanks to **Mrs. Marium ul asia, M.A Ex MLA, Administrator,** Sara College of Nursing, Dharapuram for having given me an opportunity to undergo the study in this esteemed institution.

I owe my profound gratitude to **Head of Department**, and **my Research Guide, Prof. Mrs. Glory Suramanjary M.Sc(N).,** Department of Obstetrics and Gynecology for her patience and excellent guidance, motherly love, affection, concern, moral support and valuable suggestion, encouragement, direction, pensive correction, personal interest and prayers till the completion of the study.

I extend my gratitude to my class coordinator **Mrs. Gomathi, M.Sc.,(N), Mphil(psy), PGDHM,** who had been my constant source of support and guidance.

I extend my gratitude to **Mrs. Usha,Msc.,(N), Mrs.Nisha,Msc, (N)., Mrs.Tamilarasi,Msc.,(N), Ms.Kalaivani,Msc.,(N),** and **Mr. Dhinesh, Msc.,(N),** for their guidance and constant encouragement throughout the course.

I acknowledge my genuine gratitude to the **Medical Officer of Kasturba Hospital--Dindugal** for granting permission to conduct the study, treasured help for completion of the study.

I express my genuine gratitude to **Dr. Sivaprakasam M.Sc., M. Phil., Ph.D.,** ,Reader in Statistics, Gandhigram Rural university Dindigul District, for his constructive suggestions regarding statistical analysis.

I extend my gratitude to **Mr. A.K. AYYARAJENDRAN. M.A., M.ED., (English)** for his valuable English Editing.

I extend my sincere thanks to the **Librarians,** Sara College of Nursing for rendering their support and help during the time of my study.

I extend my thanks to Tamlinadu Dr. M.G.R.Medical University for co-operation and giving permission for utilizing the university library.

I also would like to thank the mothers who participated in this study and gave full support and amicable cooperation.

I extend my special gratitude to **Mr.C. VIJAYAKUMAR** and staff members of **Vijay Xerox** for their patience, co-operation, understanding the needs to be incorporated in the study and timely completion of the manuscript.

I extend my special soulful gratitude and thanks to my beloved **Mr.V.Rajaraman.Bsc,D.Pharm.,M.A(Hindi).,** for their support and constant encouragement throughout the course and this research work.

My deep gratitude to my seniors, my friends ,and classmates for their kind co-operation and support to complete this study.

Last but not the least, I extend my soulful gratitude and thanks to my husband **Mr. R. Selvakumar**, my daughter **Baby. Chaarudharshini,** and also I could thank my beloved sisters **Mrs.Padmavathi Vijayakumar.B.M.L.T.,** and **Mrs. Karthika Selvakumar.M.E** for their prayers, blessings and constant encouragement throughout the course and this research work.

C.MUTHUMARI

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ABSTRACT

Postpartum period is a period when the mother experiences intense physical and emotional stress due to exhaustion anxiety and excitement, each mother has to adjust to physical changes in her own body due to involution and lactation as well as cope up with new

demands in her time and emotions made by the newborn baby. Postpartum period is distinct in to three phases. The third phase is the postpartum period which can last up to 6 weeks. Some changes to the genitourinary system are much longer in resolving and some may never fully revert to the prepregnant state.

A comparative study to assess the effectiveness of betadine sitz bath versus neem extract sitz bath on episiotomy wound healing among primi postnatal mothers, in kasturba hospital at Dindugal.

The data was collected at kasturba hospital – Dindugal for a period of four weeks . The investigator has obtained written permission from the hospital medical officer and nursing superindent. 0ral permission was obtained from the each participants prior to the study. The purpose of the study was explained to the subjects prior to the study..

The investigator selected 60 samples on the basis of inclusion criteria,and the samples were divided in to two groups(I&II) . Among that 30 samples were experimental group I and other 30 samples were experimental group II , who met the inclusion criteria were selected by purposive sampling technique.

The first two weeks the samples for experimental group I were selected from the postnatal ward I and demographic variables were collected and pretest was conducted on the first day morning, the wound healing was assessed by REEDA scale. Then the interventation of betadine sitz bath was given for 10-15 minutes , twice a day daily (Morning & Evening) and for three days to experimental group I.

Next two weeks of period ,the experimental group II was selected from the postnatal ward II and demographic variables were collected and pretest was done on the first day morning, the wound healing was assessed by REEDA scale. Then the intervention of neem extract sitzbath was given for 10-15 minutes, twice a day daily(morning&evening) for three days to experimental group II. Then the post test level of wound healing was assessed by REEDA scale. The data were analyzed and tabulated using descrptive and inferential statistics.

The findings shows that the mean wound healing score in experimental group I in before betadine sitzbath is 9.3 (SD±1.104) and after Betadine sitzhbath is 0.56 (SD±0.670) respectively. The paired t-test value is 38.870 ,which is significant at $P<0.05$ level . And the mean wound healing score in experimental group II , before Neem extract sitzbath is 9.2 (SD±0.959) and after Neem extract sitzhbath is 0.23 (SD±0.424) respectively. The paired t-test value is 53.926 ,which is significant at $P<0.05$ level .

The mean post test wound healing score in group I is about 0.56 (SD±0.670) and group II is about 0.23 (SD±0.424) respectively. The independent t-test value 2.537 which is significant at $p<0.05$. The results shows that there is a significant difference between the mean post test score of betadine sitzbath and mean post test score of neem extract sitzbath on episiotomy wound healing among postnatal mothers .Therefore it is clearly proved by this study that Neem Extract Sitzbath is effective more than betadine sitz bath on episiotomy wound healing.

CHAPTER - I
INTRODUCTION

" Women because of their closure
affinity to their children
suffer more keenly than do men ."

Elizebath backston.

BACKGROUND OF THE STUDY

Motherhood is more than a premium birth centre – It is a way of experiencing birth as a normal, natural, completely unique and personal event in a family. We give utmost priority to a woman needs and preferences during the most special moment of life. We also believe in educating our clients and their families about every procedure to assist them in making informed health care choices.

MS.JessicaRowe.,(2011)

Post partum period lasts from delivery to six weeks afterward, it is also known as fourth trimester. The post natal mothers experience various physiological and psychological changes when she makes the transition from the pregnant woman to a mother. The needs of the client and the family during the post partum period can be met through coordinated multi disciplinary care of the mother, child and the family.

Paultte D.,(1996)

Early discharge plan for the post natal mother can be confirmed by the evaluation of the mother's health status and comfort level, self care education. Assessment at the time of discharge includes vital signs, fundus, breast, uterus, bladder, bowel, lochia, episiotomy, Homan's

sign and emotional status of the women. The routine hospital stays after uncomplicated vaginal delivery had ranged from 12 hours to one week. The current hospital stay for mothers having normal vaginal delivery is 24 to 48 hours. The attending provider is permitted to discharge the client earlier if the client agrees.

Littleton Y.L.,(2007)

The first performance of episiotomy was done in 1974, when perineal incision was used to facilitate deliveries. Episiotomy is the surgical incision made to enlarge the vaginal opening for delivery of baby's head. Depending on the client preference, situation and provider preference and judgement, some women experience delivery with an episiotomy. This is an incision through the perineal tissues that is designed to enlarge the vaginal outlet during the delivery. The rationale for its use depends largely on the need to minimize the risk of severe, spontaneous, maternal trauma and to expedite the birth when there is evidence of foetal compromise.

Fraser.M.,(2007)

Episiotomy infection can be observed by persistent redness and swelling, separation of wound edges, purulent discharge and persistent pain. The immediate complications related to episiotomy are extension of the incision, vulval haematoma, infection, wound dehiscence, injury to the anal muscles and necrotizing fasciitis. The remote complications related to episiotomy are dyspareunia, chance of perineal lacerations and scar endometriosis.

Dutta.D.C.,(2004)

In this era of advanced modern technology all mothers are looking hopefully in nurses to help in bringing down maternal morbidity rate and relieve them form from pain and discomfort soon after birth. Thus it becomes the nurse's responsibility to identify the ways of reducing and preventing maternal problems as well as to identify the cost effective measures in relieving pain. Relieving pain and promoting comfort to the mother is important basic need. It can also establish and improves mother and child relationship

Lacrent.C., (1992)

Episiotomy wound can cause a considerable discomfort and pain the perineum is extremely tender area and the muscles of perineum are involved in many activities. e.g sitting, walking, controlling urination and defecation. This discomfort interferes with the rest and sleep. Mother feels discomfort even when she holds her baby and it affects breast feeding and newborn care. A cortisone based cream or a sitz bath helps to decrease inflammation to relieve tension in that area.

Specific measures to control infection and promote wound healing are use of soap and water to wash vulva and perineum, change the perineal pad every 2 to 3hours, place ice packs against the episiotomy for 1 hour period every 2 hours during the first 24 hours following birth, sit in warm sitz bath for 15 to 20 minutes, apply a topical anesthetic to the episiotomy at every pad change.

Pillitteri A.,(2007)

In pharmacological treatment on episiotomy wound healing, the pramoxonine hydrocholoride 1% and hydrocartizone acetate 1% in a meso adhesive foam, were relieving episiotomy discomfort and

wound healing for postnatal mothers. Meso adhesive foam were more effective with regard wound healing and episiotomy discomfort as measured by analgesic consumption. Pramoxine and hydrocartizone foam offers no advantage over meso adhesive foam in the treatment of postpartum episiotomy wound healing.

Greer IA ,Cameron AD.,(1984)

Sitzbath is one of the oldest, cheapest,and safest treatments for curing many common aliements. The technique exploits the reaction of the body to hot stimulus. It is seen that heat soothes the body hence increasing the internal activity. Cold water shunts the blood to internal organs whereas hot water removes the waste from the body tissues.

Joseph M., (2009)

Povidine - Iodine is an antiseptic solution that is usually used in **Iran** for episiotomy wound healing **(Valiklian , et ., al , 2011)**. Tork and valei (2002) demonstrated that there was no significant difference between the povidine- iodine and water on episiotomy wound healing. Povidine- iodine suppresess the function of fibroblasts and lymphocytes . Previous research suggested that povidine - iodine has anti-inflammatory effects and anti-septic effects and pre- wound healing effects , by increasing the mRNA transcripts of growth factor - beta I and fibrocetein , so povidine- iodine solutions are very effective for episiotomy wound healing

Fahimeh., Sehat; shafai .,(2012)

The sanskrit name of the neem tree is " **Arishitha** " means "reliever of sickness" and hence is considered as " **Sarnaroganibarini** ". **Neem (or) Azadirachta Indica ,** popularly known as magosa is a

large, evergreen tree. Neem extracts is a powerful insects repellent, anti-bacterial, anti- fungal, anti- viral, anti- inflammatory, anti- diabetic and also strengthens the bodys over all immune responses. Neem oil contains fatty acids which build collagen, promote wound healing and maintain skin elasticity. This keeps any wound (or) leison free from secondary infection by micro organisms.

Dahanukar et.al.,(2000)

NEED FOR THE STUDY

In worldwide there is considerable international variation in the rate of episiotomy. The rate is of 15% in England, 13% in Scotland, 10% in Wales and 22% in Northern Ireland, it is 8% in Holland, 14% in England, 50% in the USA and 99% in Eastern Europe.

Royal C.,(2004)

In United States, percentage of episiotomies performed out of all vaginal deliveries is 19.4%. Episiotomy rates were higher among white women (32.1%) than African American women (11.2)

(HENRIKSEN.,(1992)

In Ireland the rate of episiotomy for operational deliveries was 37.5 %. Over all episiotomy rate at Denmark was 19.8%in 2000.

Jeffery L.,(2000)

In Australia episiotomy rate is currently around 35%. In Taiwan, it is accepted practice to do an episiotomy on all first time mothers, here the rates are close to 90%. China, Spain, South Africa and Turkey also report extremely high episiotomy rates ranging from 60% to almost 90%. The rate of episiotomy in Sweden is 9.7%.

Rhode and Bargar.,(1990)

In Canada, There was an overall episiotomy incidence of 48%; obstetricians performed episiotomy in 54% and family physicians in 33% women. In Russia, episiotomy rates varied from 9–80%.

Justin .P.,(2007)

An Asian survey done by the WHO in 2007-2008 compared the percentage of episiotomies performed out of all vaginal deliveries rate among nine Asian countries. The highest numbers were seen in china with a episiotomy rate of 46% and the lowest rates were found in combodia and in India where the rates ranged from 15%-18%. In Europe the episiotomy rates ranged from 14%, in Netherlands to 38% in Italy.

. **Anh T.Trinh.,(2001)**

In India the overall rate of episiotomy is 40.6%. Among that midwives performed episiotomy was lower rate 21.4% than faculty 33.3% and private providers 55.6%.

Robinson.,(2000)

In New Delhi, Episiotomy rates differ according to care provider. The episiotomy rate among midwives was 25% and 40% among medical doctors. Younger doctors are also less likely to perform an episiotomy than older doctors; one study found the rate of episiotomies performed by residents to be 17%, while the rate among doctors in private practice was 66%.

J.Rank.,(2008)

In Madhya Pradesh, routine episiotomy was done in 72.7% of women. While the rate of restrictive episiotomy group is 27.65 % and

has concluded that there was an increases risk of anterior perineal trauma with restrictive episiotomy.

T.Santha.;(2009)

In Karnataka,SNR hospitals, kolar district, in the year 2007 there was 1531normal vaginal deliveries were conducted, out of this 100% incidence of episiotomy among primigravida women and 50% incidence of episiotomy among multigravida women during the second stage of labour.

Marshall.,(2007)

In Chennai, the incidence of episiotomy was 96 percent for first pregnancies, they were 100 percent in private hospital, it fell to about 7% in primary health centre and to 0% at the sub centre.

Narindas.H.,(2008)

In Pondicherry , thiruvallur district, in the year 2013 there was 1061 normal vaginal deliveries were conducted, out of this 100% incidence of episiotomy among primigravida women and 60% incidence of episiotomy among multigravida women during the second stage of labour.

(Ms . Bhavani . P ., 2013)

The complication of episiotomy includes asymmetry (32.9%), infection (23.7%), partial dehiscence (14.5%), skin tags (7.9%), haemorrhage (5.3%) and extension of the incision (1.3%). 85% women experienced some form of trauma. Tears to the rectum and vaginal vault were more common with episiotomy.82% of the women with large episiotomy, delay in starting to have sexual relations. The

suturing of the episiotomy was found to be painful by 40% women. 20% woman had pain in the perineum for more than one month. 10% woman had infections in the episiotomy, half of these required treatment. Wound infections from episiotomy amounted to 3% of women of this 27% of maternal deaths occurs.2.6% of women need further surgeries to fix episiotomy complications.

Katherine.H.et.al.,(2007)

The episiotomy wound has some risk which includes blood loss, pain, infections, delayed healing, dyspareunia and may contribute to maternal blues. (occur in 60% women. Pain and edema may inhibit urination and defecation after delivery. Therefore it is necessary to reduce episiotomy pain

Reading.et. al., (1990)

OF all deliveries in 2006, 39% were conducted in an institutional and 48% of the total number of deliveries were attended by health personnel. The number of institutional deliveries only 18% of the illiterate mother , and compared to 86% of the mother with twelve (or) more years of education. In India 2007-2008 institutional deliveries is seen in the range from about 35% in chhattigarh to 76% in Madhya Pradesh ,284 districts are high focus on institutional deliveries and less than 60% in 70 districts in 2011.

Amina Khambalia.,, (2006)

A comparative study was done to assess the effectiveness of neem extract sitzbath and the betadine sitz bath on the perineum after episiotomy in selected hospitals at dhasarally- bangalore.. In this study quasi experimental design was adopted. 60 samples were randomly

assigned to treatment conditions. The REEDA score for betadine and neem extract sitz bath are 0.2, 0.866 respectively. The't' test value is 2.8263, the calculated value is more than the table value (1.701). There is improvement wound healing to mothers who had undergone the treatment of betadine sitz bath and neem extract sitzbath.

Mrs . Jeyanthi ., (2008)

The investigator from her personal experience during her clinical postings at postnatal wards identified many complications like resuturing, purulent discharge and mothers felt more discomfort due to episiotomy among postnatal mothers with episiotomy.

The researcher felt that, when postnatal mothers are cared with definite nursing measures during postpartum period, the severity of infections are reduced. So the researcher intended to do a study on postnatal mothers with episiotomy using two specific nursing procedures, in a view to reduce the complicating of episiotomy.

STATEMENT OF THE PROBLEM

A comparative study to assess the effectiveness of betadine sitz bath versus neem extract sitzbath on episiotomy wound healing among post natal mothers in Kasturba hospital at Dindugal.

OBJECTIVES:

1 To compare the pre and post test level of wound healing scores among post natal mothers in experimental group I (Betadine sitzbath)

2 To compare the pre and post test level of wound healing scores among post natal mothers in experimental group II (Neem extract sitzbath).

3 To compare the effectiveness of post test level of wound healing scores among postnatal mothers between experimental group I&II.

4 To find out the association between the post test level of episiotomy wound healing scores with their selected demographic variables in experimental group I. (betadine sitzbath)

5 To find out the association between the post test level of episiotomy wound healing scores with their selected demographic variables in experimental group II.(neem extract sitzbath).

HYPOTHESIS;

H1: There is a significant difference between the mean pretest and post score on episiotomy wound healing among post natal mothers in experimental group I.

H2: There is a significant difference between the mean pretest and posttest score on episiotomy wound healing among post natal mothers in experimental group II.

H3: There is a significant difference between the mean post test scores on episiotomy wound healing among post natal mothers between experimental group I and experimental group II

H4: There will be a significant association between the mean post testscore on episiotomy wound healing among post natal mothers with their selected demographic variables in experimental group I.

H5: There will be a significant association between mean post test score on episiotomy wound healing among post natal mothers with their selected demographic variables in experimental group II.

OPERATIONAL DEFNITIONS:

COMPARATIVE STUDY:

It refers to the statistical comparison of episiotomy wound healing between two groups.

EFFECTIVENESS:

Effectiveness means producing an intended result.

(Kiderley ., 2003)

In this study it refers to the significant difference brought between the betadine sitzbath and neem extract sitzbath and it is measured in terms of wound healing process by using statistical measurements and its scores .

EPISIOTOMY:

Episiotomy is defined as surgical enlargement of the vulval orifice for obstetrical purposes during parturition.

(**Maureen . A. Hickman"s Midwifery .,1967)**

In this study episiotomy is refers to a surgical incision made on perineum to facilitate the birth of the baby and it is measured by REEDA scale and its scores.

POSTNATAL MOTHERS :-

Postnatal mothers belongs to the period of beginning immediately after the child birth of a child and extending for about six weeks.

Whales J .,(2008)

In this study, it refers to primi mothers who have undergone normal vaginal delivery with episiotomy after a period of six hours to 5 days.

SITZ BATH:-

Sitzbath is a form of hydrotherapy given by using hot (or) cold water, steam (or) ice to restore and maintain health. It increases blood flow to the pelvic and abdominal areas and alleviates a variety of problems.

Linda., (2007)

In this study it refers to immersing the perineum in a basin of warm water at a temperature of 105° F for 10 minutes every morning and evening for 3 days.

WOUND HEALING

Restoration of integrity to injured tissue by replacement of dead tissue with viable tissue

Bailliere's (2009)

In this study it refers to absence of symptoms such as redness edema, echymosis, discharge, approximation as measured by REEDA scale and its scores .

NEEM EXTRACT

In this study it refers to a solution in which 30gms of neem paste is added in 5litre of water then the boiled solution is filtered and called as Neem Extract.

BETADINE SOLUTION

It is the pharmacologically available 10% povidine - iodine topical antiseptic solution.

ASSUMPTIONS

- Improper care of episiotomy may lead to infection
- Postnatal mothers with episiotomy may prone to develop complications
- Nurses have an important role in reducing episiotomy pain and promotion of wound healing

DELIMITATIONS:-

- The study is delimited to 60 samples
- Four weeks of data collection
- The mother who are willing to participate

ETHICAL CONSIDERATION:

The study was conducted after the approval of the dissertation committee of Sara Nursing College, Dharapuram. A written permission was obtained from the concerned authority of the selected hospital. The purpose and nature of the study were explained to each subject and oral consent was obtained. Patients are also informed that they can withdraw themselves from the study whenever they feel difficulty or any inconvenience.

PROJECTED OUTCOME:

This study helps the mother to promote wound healing during postnatal period. It promotes interest in pharmacological & non pharmacological treatment approach to episiotomy wound healing. The comfort and relief may help the mother to have postnatal period without any complications and also it helps for maternal and infant wellbeing.

KING'S GOAL ATTAINMENT THEORY

The purpose of the conceptual framework is to make the students and researchers to identify and analyze events in specific nursing situation. This framework suggests the essential characteristics of nursing and those properties that have persisted in spite of environmental changes. This theory was related to the means of analyzing the interactions.

King derived the following seven hypotheses in goal attainment theory:

- Perceptual congruence in nurse patient interaction increases the mutual goal setting.
- Communication increases mutual goal setting between nurse and patient and leads to satisfaction
- Satisfaction of the patient increase goal attainment
- Goal attainment decrease stress and anxiety in nursing situation
- Goal attainment increase patient learning and coping ability in nursing situation
- Role conflict experienced by the patient, nurses or both decreases transaction in nurse patient interaction

The elements of interaction are

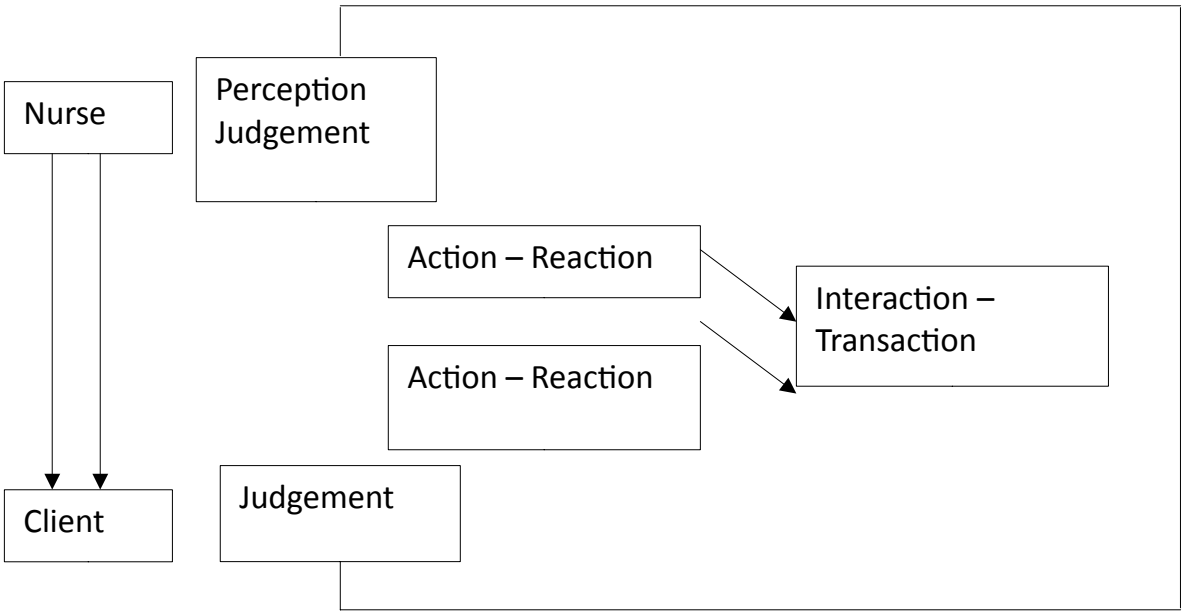
- Action
- Reaction
- Disturbance
- Mutual goal setting
- Explore means to achieve goal

- Transactions
- Goal achieved

This theory combines some factors from the classification system and the process of human interaction.

THEORY OF GOAL ATTAINMENT

Major components of theories of goal attainment are stated in her interpersonal system in which two people who are the strangers come together in health care organization to help and to be helped to maintain a state of health that permits functioning in roles.



PERCEPTION

According to theorist, Perception is each person's representation of 'reality'. The elements of perception are the imparting of energy from the environment and organizing it by information transforming energy, information, storing information and exploring information in the form of overt behaviour.

In this study perception reveals the pain perceived by the patient and condition of the wound by the nurse. The researcher collected the demographic variables such as age, education, occupation, religion, monthly income, type of family and type of delivery. Pretest was done by using REEDA scale in both experimental group I & II.

JUDGEMENT

According to theorist, Judgement is a mental action that decides to act, it focus on as the intervention that is going to be in action.

In this study nurse decides to promote wound healing. The mother needs a fast in episiotomy wound healing and recovery.

ACTION

According to theorist, Action is defined as a sequence of behaviour, involving mental and physical action. First the mental action helps to recognize the presenting condition and physical action helps to begin activities related to those condition and finally mental action in effort to exact control over the situation combined with physical action seeking to achieve the goals. It means taking some actions to promote wound healing.

In this study, the action represents deciding to provide betadine sitz bath in experimental group I and neem extract sitzbath on episiotomy wound site by the nurse to the patient in the experimental group in II. The client decides to take some measures to promote wound healing .

REACTION:

According to theorist, Reaction is the sequence of behaviour described in action.

In this study, it includes the efforts taken by the nurse by means of intervention for both groups. The nurse explains the procedure to experimental group I & II and gets the consents from the samples. In experimental group I & II the client decides to cooperate and accept betadine sitzbath and neem extract sitz bath for 3 days.

INTERACTION

According to theorist, Interaction is defined as the process of perception and communicated between person and environment and between person and person represented by verbal and non verbal behaviour that are goal directed. Hence each individual involved in an interaction brings different ideas, attitudes and perception to exchange. It includes the perception, judgment, action and reaction. Interactions are the observable behaviour of two or more person in mutual presence.

In this study interaction represents the procedure done by the nurse for the experimental group I & II. Betadine sitzbath was given for 10 minutes twice a day (morning & evening) and Neem extract sitz bath was given for 10 minutes twice a day (morning & evening) for 3 days. .

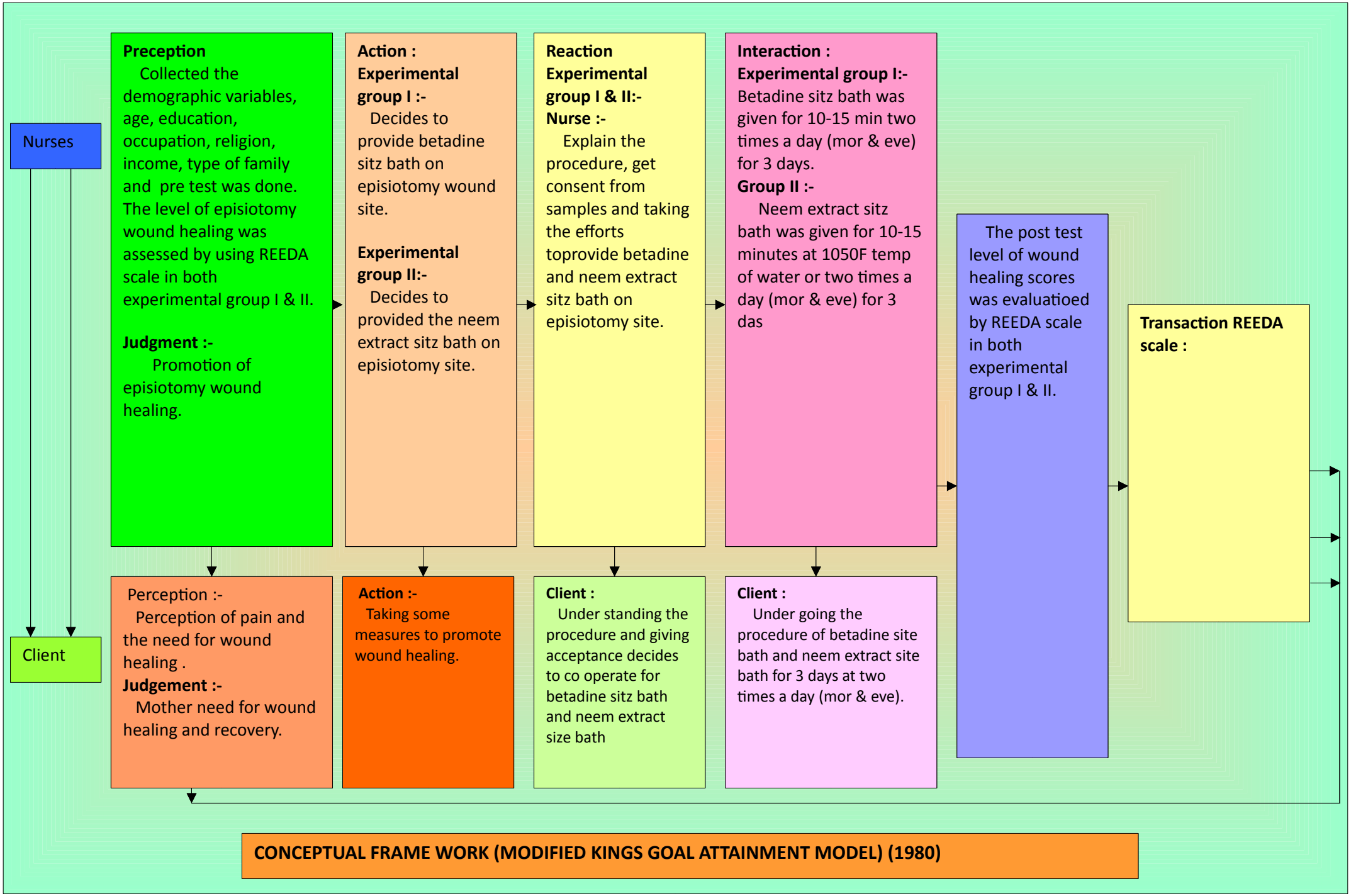
TRANSACTION

According to theorist, Transaction is defined as the observable behaviour of human beings interacting with that environment. Transactions represent the valuation component of human Interactions and involved bargaining, negotiating and social exchange. When

Transaction occurs between nurses and clients goals are attained. It is a purposeful interaction that leads to goal attainment. Transactions for this conceptual framework are derived from cognitions and perceptions.

In this study, the post test was done in experimental group I and II by using REEDA Scale to assess the wound healing. . The wound healing was graded as no infection, mild infection, moderate infection and severe infection.

Thus King's states that, a professional nurse with special knowledge, skills and perception of personal problems meets the strangers in natural environment. They interact mutually to identify problems and achieve goals.



CONCEPTUAL FRAME WORK (MODIFIED KINGS GOAL ATTAINMENT MODEL) (1980)

CHAPTER-II

REVIEW OF LITERATURE

Review of literature is an essential component of research process. Review of literature is a critical examination of publication related to a topic of interest. Review should be comprehensive and evaluative.

The review of literature in this study was organized as follows:

PART--I

- Overview of episiotomy

PART-II

- Studies related to prevalence of episiotomy.
- Studies related to complications of episiotomy.
- Studies related to betadine sitz bath on wound healing
- Studies related to Neem extract sitz bath on wound healing.

PART--I

OVERVIEW OF EPISIOTOMY

DEFINITION OF EPISIOTOMY:

A surgically planned incision on the perineum and the posterior vaginal wall during the second stage of labour is called episiotomy (periniotomy)

D.C Dutta.,(2010)

An episiotomy is a surgical cut in the perineum which is the muscular area between the vagina and rectum.

Baby Centre India., (2010)

TIMING OF INCISION:-

If the episiotomy was given too early it will fail to release the presenting part and haemorrhage. From blood vessels may ensure .the incision is best made on a contraction when the tissues are stretched. So that there is a clear view of area and bleeding is less likely to be severe.

Diana. S.,(2003)

TYPES OF INCISION:-

Median: incision is made in the middle of the perineum and directed towards the rectum and easy to repair and more comfortable for the patient during the healing process.

Medio lateral: incision laterally begins at the fourchette and is directed at a 45 degree angle to the midline towards a point midway between the ischial tuberosity and the anus. It could be enlarged when needed. Mother feels uncomfortable during healing process.

Lateral: the incision starts from about 1 cm away from the centre of fourchette and extents laterally.

'J' shaped :the incision begins in centre of fourchette and is directed posteriorly along the midline for about 1.5 cm and then directed downwards and out wards along 5 and7 'o clock position to avoid analsphincter.

D.C.Dutta., (2010)

INDICATIONS OF EPISIOTOMY:

FETAL:-

- Reduction of trauma to the fetal head.
- When the baby is very large.
- Fetal bradycardia.
- Prolonged late decelerations
- Shoulder dystocia

MATERNAL :-

- When instrumental delivery is indicated.
- When women has undergone female genital mutation.
- Prolonged labour
- Premature delivery .
- Shortening of the second stage of labour .
- Subsequent disorder of pelvic floor anatomy and function .

Book shelf.,(2005)

USES OF EPISIOTOMY:-

Episiotomy was said to produce following benefits:

- Speed up the birth
- Prevent tearing and laceration
- Protect against incontinence
- Promote pelvic floor relaxation
- Heals easier than tear

Robin .E.,(2008)

COMPLICATIONS OF EPISIOTOMY:-

- Infection
- Increased pain
- Increase in third and second degree vaginal laceration
- Longer healing times
- Increased discomfort when intercourse is resumed

Robert. J.,(1995)

NURSING INTERVENTION IN EPISIOTOMY WOUND CARE

- Dressing: the wound is to be cleaned after defecation to keep the area clean and dry. It is done by swabbing with cotton soaked in antiseptic lotion
- Comfort: to relieve pain magnesium compress or application of infra red radiation may be used. Analgesic drug may be given.
- Removal of stitches: when the wound is sutured by catgut which will be absorbed. But if non Absorbable material is used the nylons has to be removed by 6th day.
- Ambulance: the patient is allowed to move out of bed after 24 hours.

D C. Dutta .,(2010)

- Clean the perineum from front to back after every voiding and defecation
- Focus infra red ray on the perineum for 15 minutes 2 or 3 times in first 24 hours of delivery to promote fast healing.
- Practice proper hand washing after perineal care.
- Use fruit juices that are rich in vitamin c to increase resistance against infection.
- External antiseptic applied to the episiotomy wound after every perineal care or 2 times a day.

Trained Nurses Association., (2008)

Sitz bath can be beneficial. Medications can range from over the counter products depending on the extent of pain. Tropical sprays are used to cool and make the area numb. Perineum is kept dry.

Care of wound:-to reduce stringing effect of the wound pour cool water on the area as they pass urine. Soak the perineum in cool salt water 5 to 10 minutes once or twice daily for quick healing. Feminine sprays or powders should not be used as they interfere with healing process. Lift heavy items only after 6-8 weeks after delivery.

Robin .D.,(2000)

To keep the episiotomy wound clean by oneself:-

- Place a cool gel pad, ice pack on your stitches.
- Have a warm bath
- Try to expose the stitches in air.
- Walk around as much as possible and practice pelvic floor exercise to stimulate wound healing.
- Drink plenty of water and wholesome diet to avoid constipation.
- Use mild laxatives if it is difficult to pass stools for first few days.
- Keep the stitches clean and dry.
- Apply an antiseptic cream on the wound for a few days.
- Sitz bath helps in cleaning as well as reducing pain and swelling.

Baby centre India.,(2010)

PART- II

STUDIES RELATED TO EPISIOTOMY

Vehvil – Ninen – Julkunen K. Heinonen S. (2008), conducted a study on need for and consequences of episiotomy in vaginal birth. The study was to describe and explain the short – term effects of lateral episiotomy, and determine the factors associated with more / less

common use of episiotomy. The study was conducted between October and December 206. Episiotomies were more common among primiparous than multiparous women (55% Vs 12%, P<0.001). The maternity hospital was the most significant determinant of the episiotomy rate. It was concluded that episiotomy rates can be reduced without causing harm to women or newborn babies.

Sooklim R, Thinkamrop J. (2007) conducted a study on the outcome of midline versus mediolateral episiotomy for complication such as extended perineal tears, pain scores, wound infection and other complications. All women included had low risk pregnancies and delivered at term. The outcome measures included deep perineal tears (including perineal tears with anal sphincter and / or rectum tears), other complications and women's satisfaction at 48 hours and 6 weeks postpartum. Results in women with midline episiotomy, deep perineal tear occurred in 14.8% which is statistically higher compare to 7% in women who underwent a medio-lateral episiotomy (p<0.05). there was difference between the group for other outcome (such as blood loss, vaginal hematoma infection, pain, dyspareunia, and women satisfaction with the method). The risk factors for the perineal tears were: midline episiotomy, primi parity, maternal height less than 145cm, fetal birth weight>3500gm and forceps extraction. The conclusion was midline episiotomy compare to mediolateral episiotomy resulted in more deep perineal tears. It is more likely deep perineal tears would occur in case with additional risk factors.

Dimitrov A, tsenov D, ganeva G. (2000) conducted a study on cause for healing complications in episiotomy. The aim of the study is to look for the most probable causes of disturbed healing of episiotomy.

The study is prospective and includes 33 early puerperal women without data of infection disease or risk factor like PPROM, vulvovaginitis, chorioamnionitis, diabetes, obesity and others. The cases are divided in two groups; the first group are 12 women with normal healing of episiotomy; the second group 21 cases with wound healing complications, divided in three subgroups: 13 with edematous and erythematous edges; 5 with superficial dehiscence in introitus vaginae;3 with entirely open episiotomies. The results were for a period of 5 years the mean rate of entirely open episiotomy is 1.07%. According to data the process of episiotomy healing is not influence by age of women parity, duration of labor, the weight of the neonate. For the episiotomy outcome, the experience of the obstetrician is important. The shorter time between ROM during labor and delivery and use of cat-gut stitches on the skin of the perineum show tendency of poor healing of the episiotomy.

Graczyk S, Limanowski M, Wyduba M, (1998) conducted a study on comparison of healing and patient comfort parameters between interrupted and subcutis polyglycolic acid suture used for episiotomy repair after delivery was done. Patients had follow up during hospital stay, and two months after delivery a self administered questionnaire was sent to all women who participated, enquiring about perineal pain, and resumption of sexual intercourse and cosmetics of suture line. Of 52 patients who had repair with interrupted suture, 21 were lost to follow up. Of 65 gravida who had repair with sub cutis suture, 23were lost to follow up. At the 3rd day postpartum examination, patients with sub cutis sutures had significantly better healing. An inflammatory process was present in 2 of 52 patients with interrupted sutures comparable with 1 of 65 in the sub cutis group, and

a gaping wound in 0 of 52 and 1 of 65, respectively. Recovery of function, measured by resumption of sexual activity by 8 weeks, was demonstrated in 5 of 31 patients with interrupted sutures versus 24 of 42 patients who had sub cutis sutures. Episiotomy repair with sub cutis polyglycolic acid (Dexon) offers significant advantages over traditional interrupted suture, both in terms of wound healing and resumption of sexual activity..

Lancet (1993) conducted a study on routine Vs selective episiotomy: a randomized controlled trial. It compares the selective with routine use of a mediolateral episiotomy for women having first and second deliveries in 8 public maternity units in Argentine. Episiotomy was done in 30.1% of deliveries in the selected and 82.6% in the routine group. The main outcome measure was severe perineal trauma. Severe perineal trauma was uncommon in both group but was slightly frequent in the selective group (1.2% Vs 1.5%). Anterior perineal trauma was more common in the selection group but posterior perineal surgical repair, perineal pain, healing complications and dehiscence were all less frequent in the selective group .

FYNEFACE – OGAN S, MATO CN, ENYINDAH CE, 2006 were conducted a comparative study to assess the effect of two local anesthetic agent on post partum perineal pain in university of port Harcourt teaching hospital, Nigena. By using a random sampling technique, the study was conducted in primi parous women who had spontaneous vaginal delivery, comparing with 1% plain lidocaine and 0.25 % plain bupivacaine infiltration for the repair of selective episiotomy. Results showed that within 2 to 4 hours, women who had perineorraphy under lidocaine had significantly higher pain scores on

the visual Analogue scale (VAS) than those who had the repair under bupivacaine. The P value was P< 0.0000 (students 't' test) and statistically significant. The study suggested that bupivacaine had a prolonged analgesia and need a fewer doses of oral analgesics in the immediate postpartum perineal repair period[26]

Nam HK, Park YS (1991) conducted a study on comparison of ice bag and heat lamp for the relief of perineal discomfort. The purpose of the study were to compare the effect of ice bag and heat lamp for the relief of perineal discomfort and to identify the sustaining time of each effects. Forty women took ice bag and heat lamp with random assignment of initial therapy. Women rated the degree of perineal discomfort before and after each therapy and at half hour, two hour and four hour intervals after each therapy. A discomfort scale, 18cm graphic rating scale was used. The results of the study were as follows: 1. The ice bag group showed (p=0.000) significantly lower discomfort score than the heat lamp group (p=0.002) at the half hour and two hour intervals after therapy. 2. The ice bag group showed significantly lower discomfort score for 5 hour after than before therapy (p=o.ooo), but the heat lamp group did not show significantly lower discomfort score. 3. Neither the type of episiotomy nor the previous experience of heat therapy influenced on the effect of ice bag relieving the perineal discomfort. Therefore ice bag was significantly more effective in relieving the perineal discomfort than heat lamp

Hill PD (1989) conducted a study on effect of heat and hold on the perineum after episiotomy / laceration. The Redness Edema Ecchymosis Discharge Approximation (REEDA) tool, devised to evaluate postpartum healing of the perineum following an episiotomy/

laceration, was used to evaluate the effect of heat and cold on the perineum during the first 24 hours after delivery. Ninety patients were randomly assigned to one of three treatment groups. Treatment consisted of 30 subjects applying a warm perineal pack, 30applying a cold perineal pack, and 30 taking a warm sitz bath. Analysis of variance indicated no difference in the REEDA score before or two hours after treatment. A Pearson correlation indicated the REEDA score was ($p=0.009$), ($p=0.003$) associated with a laceration and not with infant weight. Although these findings do not support assumptions from the literature, this study provides baseline data and trends for future study.

Culhane.J.,(2002) conducted descriptive study was conducted to assess the prevalence of episiotomy among primi postnatal mothers at child birth clinic, United States. Simple random sampling was used. Episiotomy is the most common during postnatal period. It occurs in 20% to 73% of primi women in hospital deliveries. 4% to 13% had fourth degree perineal laceration where ($r=0.07, p<0.01$).80% of episiotomy is because of prolonged labour, obstructed deliveries and infant weighing 2800 to 4000g. The study reveals that most of the primi postnatal mothers (73%) have complaints due to episiotomy during the postnatal period.

Krone.m.et.al.,(2008) conducted a study to assess whether the episiotomy at first vaginal delivery increase the risk of spontaneous obstetric lacerations in subsequent deliveries in Magee women's hospital at Pennyslavia, USA. 6052 patients were included in the study. Data was collected by Magee obstetric maternal and infant data base. Multivariable polytomous logistic regression was used for data analysis. The study result reveals that 47.8% of them had episiotomy in

first delivery. Spontaneous second degree laceration at the time of second delivery occurred in 51.3%who has the history of episiotomy compared with 26.7% without having the history of episiotomy ($p<.001$). Only 1.7% has laceration without the history of episiotomy. The study concludes that episiotomy at first vaginal delivery increases the risk of spontaneous obstetric laceration in subsequent delivery.

STUDIES RELATED TO COMPLICATIONS OF EPISIOTOMY

Hilger.S.et.al.,(2000) conducted a cross sectional study for 101 samples selected randomly in NHS hospital, Pune. The objective of the study was to determine the rate and describe the complications for episiotomy and perineal tear in low risk primi gravida. Check list was used to assess the rate of episiotomy and their causes. Inferential statistics was used for data analysis. The study result reveals that, 83% of women explain some sort of perineal trauma. 40% of mothers had episiotomy only, while 65 % had episiotomy and perineal tears. 37% had perineal and other tears without episiotomy. The main reason for episiotomy is fetal distress 27% and impending tears 25% and delay of the second stage labour 21%. The distribution of having episiotomy is increased with the second stage of labour irrespective of the time of delivery.

Fenner D.,(2003) conducted a study to estimate the incidence of urinary and bowel incontinence, and the factors associated with anal sphincter laceration in university of Michigan Medical center. Questionnaire was prepared separately for urinary function and bowel function and sent to women who delivered vaginally with episiotomy along with demographic variables. 943 women completed urinary function questionnaire and 831 women completed bowel function

questionnaire. Univariate analysis was performed in all covariates; multiple logistic regressions were used for analysis of presence of laceration. The study results shows that, 19% of the women sustained third and fourth degree laceration during child birth, 23% women had sphincter laceration p>.05. About 70% of midline episiotomy women had anal sphincter laceration and 50% of women had urinary incontinence after delivery.

Choa.et.al.,(2010) conducted a study to find the effect of episiotomy on pain, urinary incontinence and sexual function up to 3 months postpartum, in a medical centre at Taiwan. A prospective follow up study was used. The tool consist of short form Mc Gill pain questionnaire, international consultation on incontinence questionnaire, female sexual function index and demographic variables. Data analysis was done by ANOVA and chi square test. Validity and reliability were assessed using Cronbach's alpha coefficient and factor analysis. The study result shows that the women who delivered without episiotomy had significantly lower perineal pain scores on 1, 2, 6th day compared to women who had episiotomy (p=0.006, 0.039, 0.0497) groups. The mean urinary incontinence score was significantly higher in the episiotomy group 3 months postpartum (p=0.0065). No degree of sexual dysfunction was found between the group.

STUDY RELATED TO BETADINE SITZ BATH ON EPISIOTOMY WOUND HEALING

Sheikhan F, Jahdi F, Khoei EM, (2012 AUG) was conducted a clinical trial involved 60 qualified primiparous women , they were randomly categorized in to two groups participants discomfort were recorded using a REEDA scale, 12hours and 5days following

episiotomy. Collected data was analyzed in SPSS 14 using an independent t-test and chi-square. There was a statistical difference in pain intensity scores between the 2groups after 4hours (p=0.002) and 5days (p=0.000) after episiotomy. However differences in pain intensity between the two groups, at 12hours post-surgery were not significant (p=0.066). The REEDA scale was significantly lower in the experimental group 5days after episiotomy (p=0.000).

HURMH, HanSH, The study was designed to verify the effect of betadine sitzbath on a postpartum mothers perineal healing. The subjects of this experimental were postpatum mother who are delivered vaginally with an episiotomy. The betadine sitzbath to evaluate the effect of the perineal healing status was measured by using the REEDA scale and smear of episiotomy wound were obtained. The data were analyzed by repeated measures of ANOVA,ANCOVA, chi-2test and multiple response analysis via SPSS program. The REEDA scale was significantly low in the experimental group at postpartum 5and 7 days (p=0.009), (p=0.003) respectively.

KASHYAP ANUPAMA, Marwaha R.K,(Mar-2013)Chandigrah, Episiotomy is the most common perineal surgical in obstetric and midwifery. Application betadine sitzbath is a new approach in episiotomy wound healing. The clinical trial involved 30 qualified primiparous women admitted for labour in kamali hospital in Karaj Iran, they were randomly allocated. The participants wound healing was recorded on the REEDA scale respectively. The obtained data were analyzed in using independent T- test (t=4.006) at p<0.000 and paired T-test and chi-square test. They were statistically difference in REEDA score was significantly at 5 days after episiotomy (p=0.000).

A study(Harrision .RF, 2006) was done to find the effect of betadine sitzbath on episiotomy wound healing in postnatal mother admitted in Pune hospital. 30 postnatal mothers were given betadine sitzbath according to the REEDA scale assessment score maximum (53.3%) postnatal mothers were having moderate infection before giving betadine sitzbath (9.3 (SD=1.106)) and the difference was statistically significant according to assessment of REEDA score, maximun (63.3%)after giving betadine sitzbath (0.54 (SD=O.657)), the study analysis shows that betadine sitzbath is reducing infection.

Taehan.C.,(2004) designed a study to verify the effectiveness of betadine sitzbath on the postpartum mothers episiotomy in Eulji university Hospital, Korean. The research design used for the study was clinical trial. The methods of betadine sitzbath were applied for 90 postnatal mothers who delivered with episiotomy were included in the study. The tool used for measuring the wound healing was by REEDA Scale and smears of episiotomy. Data was analyzed by ANOVA, ANCOVA, Chi square test and multiple response regression by SPSS programmed. The result shows that REEDA Scale was significantly low in the experimental group at postpartum 5th and 7th days (p=.009, p=.003). These findings indicate that betadine sitzbath would be effective in healing episiotomy.

Frank.J.,(2006) conducted a study of betadine sitz baths in relieving perineal wound healing after episiotomy in postpartum period in Gandhi memorial hospital, Hyderabad. True experimental research design was used and the patients are assigned randomly. 40 patients were assigned for betadine sitz bath. A REEDA scale using 0 -15, o representing no infection and 15 representing severe infection

was used. Data analysis was done by using two -way analysis of variance. The study result shows that betadine sitz bath were significantly more effective in reducing infection at (p=.005) level of significance.

Hamid Highani., (2004) A comparative study to evaluate the effectiveness of dry heat application & betadine sitzbath on episiotomy wound healing in postnatal mothers admitted in MAN hospitals, hydra bad. True experimental research design was used. 40 postnatal mothers were taken for the study. 20 postnatal mothers were given betadine sitzbath, 20 postnatal mothers were given dry heat application. At the end of the study it was evident that betadine sitzbath was effective in episiotomy wound healing process with the difference mean score of 0.75 with standard deviation of 0.579 at $p<0.05$ level.

Vakilian.K.et.al.,(2010) conducted a study to know the healing advantage of povidine-iodine sitzbath on episiotomy wound healing, at Essence Pharmaceuticals, Shah rood University of Medical Sciences in Iran. Random controlled clinical trial was selected for the study. The researchers enrolled 120 subjects, including primiparous women with singleton pregnancies who had episiotomies during spontaneous vaginal deliveries. The researchers used computerized block randomization to divide the subjects into 2 groups: lavender oil (n=60) and povidine-iodine (n=60). The1&2- group received lavender oil & povidine-iodine antiseptic sitzbath. The lavender oil group and povidine-iodine group took sitz baths with 5-7 drops in 4 L of water twice daily for 10 days. The evaluation was done based on 6 criteria: pain (visual analogue scale), edema (cm), redness (mm), dehiscence (wound opening), number of sutures, and infection. Retest (r=0.8) was

used to assess reliability. The post test was done on the 10th day. Inferential statistics was used for data analysis. Incision site was assessed and there was no significant difference between two groups but the redness in povidine-iodine group was significantly less than the lavender group where P=0.001

Higgens.M.et.al.,(2010) conducted a comparative study to evaluate the postpartum healing of perineum following episiotomy wound healing in Bay view Medical Center, USA. True experimental research design with random sampling technique was used. 60 patients were assigned to one of the treatment groups namely, 30 applying cold perineal pack and 30 subjects taking povidine-iodine sitz bath. REEDA scale was devised to evaluate postpartum healing. Post test was done 24 hours after delivery. ANOVA and Pearson r correlation are used for data analysis. Study result shows that there is povidine - iodine sitzbath were significantly more effective with the mean score of 0.75 with standard deviation of 0.579 at $p< 0.05$ level.

ANNIE. K . JACOB .,(2008) conducted a study to evaluate the episiotomy wound healing in primi postnatal mothers in RIMS , hospital at Manipur. Pre experimental two group pretest , posttest design was used. The mothers were selected by using purposive sampling technique. Group I was given warm water sitzbath and group II was given betadine sitzbath for three days. Then both the groups were post tested after intervention. Data were analyzed using descriptive and inferential statistics. In paired "t' test value of group I was about (mean score on REEDA scale =7.10 and1.93, t=23.469), group II was about (mean score on REEDA scale=5.77 and 0.80, t=30.569) at $p<0.05$ level of significance. Independent "t" test value was (t=4.606)

significant at $p<0.05$. The studies results show that is betadine sitzbath were significantly more effective than warm water sitzbath.

STUDY RELATED TO NEEM EXTRACT SITZBATH ON EPISIOTOMY WOUND HEALING

AMJTher, (2007-Aug), Mbah Ali, udeinya IJ., The safety and effect of an acetone/ water neemleaf extract for care of episiotomy wound after normal delivery was conducted in 50 women. The results were on healing scores on a REEDA scale was highest (score=2.5) on day of the delivery. By the 5^{th} day all the woman's wound were healed well. It was noted that all the women maintained a high standard of perineal hygiene with a mean of 5 washes a day. It concludes that in a woman with normal vaginal delivery, application of neem extract sitzbath is effective in the care of a routine episiotomy wound.

Hamid Highani., (2004) to evaluate the effectiveness of neem extract sitzbath & betadine sitzbath on episiotomy wound healing in postnatal mothers admitted in MAN hospitals, Hyderabad. 40 postnatal mothers were taken for the study 20 postnatal mothers were given betadine sitzbath, 20 postnatal mothers were given neem extract sitzbath. At the end of the study it was evident that neem extract sitzbath was effective in episiotomy wound healing process with the difference mean score of 0.75 with standard deviation of 0.579 at $p<0.05$ level.

Dhanalakshmi.V.,(2004) conducted a study to assess the effectiveness of the neem extract sitz bath and infra red therapy on the perineum after episiotomy at selected hospitals at bangalore. In this study matched group experimental design was adopted. 30 samples

were randomly assigned to treatment conditions. The instrument used for data collection includes socio demographic data, Modified Southampton Scale and wound status was assessed by modified Bates Jensen Wound Assessment Scale, pain was assessed by a verbal descriptor scale. Unpaired 't' test was done. The average wound score for infra red radiation and sitz bath are 0.2, 0.866 respectively. The 't' test value is 2.8263, the calculated value is more than the table value(1.701) the above results indicates mothers who had undergone the treatment of neam extract sitzbath expressed decreased pain intensity and wound healing on perineum after episiotomy compared to mothers who had undergone the treatment of infra red therapy.

Sandhiya.B.D., (2007) conducted a comparative study to assess the episiotomy wound healing and comfort of primipara mothers with and without neam leaf extract in a selected hospital, Mangalore. A quasi experimental design was used for the present study. The sample consists of 40 primipara mothers who are assigned randomly to experimental and control group as with and without neem leaf extract sitzbath. Tool used were base line proforma, wound assessment scale, that REEDA scale. Data were analyzed using descriptive and inferential statistics i.e. paired't' test and chi-square test. There is no significant difference in comparison of wound healing in both groups, (p=0.05). In the area of comfort there was a significant difference of comfort score in experimental group (0.64, (SD=0.771)) and control group (9.2, (SD=1.10)) at p <0.01. The findings of the study suggest that application of neemleaf extract sitzbath helps in wound healing, and increasing comfort.

Esther .J.et.al.,(2007) conducted a study to evaluate the effectiveness of neem extract sitzbath on episiotomy wound among post natal mothers in a selected hospital, iran, kajari for 40 samples. Quasi experimental research design was adopted for the study. Tools REEDA scale used, that modified episiotomy wound assessment scale. Episiotomy wound healing was assessed in both, control and experimental group, twice a day for three days. After the treatment of three days with neem extract sitzbath, 75% of women showed adequate wound healing and 25% of them showed poor wound healing. In control group 70% of them showed poor wound healing. While analyzing the association by Chi-square test there was no association between healing of episiotomy wound with selected demographical and obstetrical variable. While analyzing the area of significance of mean 't' test,(0.26, (SD=0.482)) it was found that there was a significant difference between healing scores of experimental and control group after neemleaf extract sitzbath by three days at p =0.05 level of significance.

Venkadalaxmy.V.et al;(2009) conducted a study to find the effect of neem extract sitz bath on episiotomy wound healing in post natal mothers in selected Hospitals, dhsharally,bangalore. It was experimental study of pretest post test design with 60 postnatal mothers were selected. Systemic random sampling technique was used. 30 mothers were randomly assigned to control and experimental group. REEDA scale, structured interview schedule was used to assess the episiotomy post partum healing of episiotomy. On the third day,it was found that 10% of the participant in control group developed mild infection, where as none of them had any infection in the experimental group on the third day after the administration of neem extract sitzbath.

The mean and standard deviation (9.6 (SD=1.14)) of episiotomy REEDA score were high in control group in comparison with the experimental group (0.45, (SD=0.629)). The difference was statistically significant at $p<0.001$ level.

Padma.P.R.,(2009) conducted a study on effectiveness of neem extract sitz bath versus aseptic perineal care upon episiotomy wound healing among postnatal mothers in selected hospital at Chennai. Experimental approach was used with quasi experimental design. 60 postnatal mothers with episiotomy were selected. 30 postnatal mothers were assigned to neemextract Sitz bath and 30 postnatal mothers for Aseptic Perineal Care by probability sampling technique. Demographic & Obstetric variable proforma, REEDA scale, Check list were used to assess -nursing time and materials used for the Aseptic perineal care. Pretest was conducted on first day before giving neem extract Sitz bath and Aseptic perineal care using REEDA scale. Aseptic perineal care was given by the researcher twice a day in the morning and evening. The paired "t" test value for aseptic perineal care was in 25.48 (table value=2.57) and for neem extract sitz bath was in 55.66(table value=2.57) at $p<0.05$. Independent "t" test, calculated value was 4.84 (table value=2.22) at $p<0.05$. Mean cost of materials used for neem extract sitz bath was less than that of Aseptic Perineal Care. The difference were found statistically significant at $p<0.05$. The findings of the study showed that the neemextract Sitz bath was effective when compared to Aseptic Perineal Care.

BASWA,et.,al,. (40) assessed the antimicrobial activity of KARANJ and neem (Azadirachta indica) in vitro against fourteen strains of pathogenic bacteria.Using the tube dilution technique, it was

observed that 57.14 and 21.42% of the pathogens were inhibited at 500micro/ml; 14.28 and 71.42% at 125micro/ml; and 28.57 and 7.14% at 250micro/ml of neem respectively. The activity with neem was bactericidal and independent of temparature and energy . Most of the pathogens were killed more rapidly at 4 degrees C than 37 degree C. The activity was mainly due to the inhibition of cell membrane synthesis in the bacteria.

THAKURTA,P.,Bhoomik Mukeherjees., (2007-May) Indigenous uses of Azadirahta indica.A. Juss (locally known as neem) leaves in different parts of India for curing episiotomy wound healing is wide spread. The objective of the present study was to evaluate the antibacterial and anti-secretary activity of neem extract against infection. Azadidrchta indica extract had significant antibacterial activity against wound infection of 01,0139 and non-01, non-0139,. The minimum inhibitory concentration reached by 50% and minimum bacterial concentration for the extract were 2.5, >5 and 10mg/ml respectively. Application of neem extract involved wound healing. The results obtained in this study give some scientific support to the uses of neem extract sitzbath employed by the indigenous people in India employed for the treatment of episiotomy wound healing.

HSUKF,Jaosw.,(2009) July ., Neem extract sitz bath is advised for episiotomy wound healing. A randomized controlled study was conducted to determine if the neem extract sitzbath was effect in the episiotomy wound healing in postnatal period and its easy to carry out. A total of 120 patients were randomly assigned to warm sitzbath (or) neem extract sitzbath. Clinical parameters including pain, and evaluated by REEDAscale. They were no significant difference in scores

for postnatal pain (p=0.23) irritation (p=0.48) between groups, over all satisfaction (p<0.005) compared with the neem extract sitzbath group. At the end of the 5 th day of postnatal day followup period, 90% of patients in the warm water sitzbath group (2.82and SD of 2.41) and 93%of patients in the neemextarct sitzbath group(7.42 and SD of 3.01) showed complete wound healing. There were no significant differences in episiotomy wound healing between groups.

Ms. Bhavani . P. (2009) ., March ., Neem extract sitzbath and luke warm water sitzbath on episiotomy wound healing in selected area of Thiruvallur District at Pondicherry. 30 samples were in each group was selected by randomization as sample for the study. Pre and post test was done using clinical features scale and Ph colour fast indicator stick and was compared. The organisms found predominantly during pretest was 19 (63.3%) in group A and 21 (70%) in group B . After neem extract sitzbath the over all mean difference was 8.90 and SD of 3.58 .After luke warm water sitzbath the over all mean difference was 2.27 and SD of 2.12 .Comparing the clinical features between group Aand B showed that neem extract sitzbath was more effective than luke warm water sitz bath was highly significant at the level of P<0.001.

ELIZEBATH. K . JONES.,,(2009) conducted a study to evaluate the episiotomy wound healing in primi postnatal mothers in KJK, hospital at Manipal. Pre experimental two group pretest, posttest design was used. The mothers were selected by using purposive sampling technique. Group I was given hot water sitzbath and group II was given neem extract sitzbath for three days. Then both the groups were post tested by using REEDA scale after intervention. Data were analyzed using descriptive and inferential statistics. In paired "t' test

value of group I was about (mean score 9.10 and 2.63, t=21.469), group II was about (mean score 6.51 and 1.20, t=30.569) at $p<0.05$ level of significance. Independent "t" test value was (t=4.824) significant at $p<0.05$. The study results shows that is neem extract sitzbath was more effective than hot water sitzbath.

CHAPTER III
RESEARCH METHODOLOGY

Research methodology includes research approach, design, variables, description of setting criteria for sample selection. It further deals with description of tool, sampling technique, sample size, collection of data, method of data collection.

RESARCH APPROACH:-

An evaluative and comparative approach was used to assess the effectiveness of neem extract sitz bath and betadine sitz bath on episiotomy wound healing in quantitative approach.

RESEARCH DESIGN:
SCHEMATIC PRESENTATION:

Group	Pre test	Intervention	Post test
Experimental Group – I	E1O1	X1	O2
Experimental Group – II	E2O1	X2	O2

E1:- Experimental group one

E2:- Experimental group two

O^1- Pre test

O^2- Post test

X 1– Betadine sitz bath

X2--Neem extract sitzbath

Quasi-Experimental design, two groups pre-test, post-test only design.

VARIABLE:-

Independent variable : Neem extract sitz bath, beta dine sitz bath.

Dependent variable : Episiotomy wound healing

SETTINGS:-

The study was conducted in Kasturba Hospital at Dindugal. It is a 450 bedded hospital specialized in obstetric & gynecological unit, pediatric unit, family planning unit, medical & surgical unit, and cardiology unit and about 600 antenatal mother's visits outpatients department monthly. On an average 300-400 deliveries are conducted in a month among this 250 were normal deliveries and 100-150 were caesarean and forceps deliveries. The post natal ward I&II was situated near to labour room. There were 30 beds are in each postnatal ward. About 6-8 forceps deliveries were conducted in a month.

POPULATION:

The population selected for this study was postnatal mothers admitted in postnatal ward.

SAMPLING:-

Sample Size:-

Total sample composed of 60 primi postnatal mothers who had undergone episiotomy, fulfilling the selection criteria from Kasturba hospitals at Dindugal. The sample were divided in to two groups. Among them 30 samples were assigned to experimental Group I, remaining 30 samples were assigned to experimental Group II.

SAMPLING TECHNIQUE:-

Purposive sampling technique.

CRITERIA FOR SAMPLE SELECTION:

The sample was selected based on the following inclusion and exclusion criteria.

Inclusion Criteria

- Primi postnatal mothers
- Postnatal mothers with episiotomy
- Postnatal mothers who are willing to participate
- Postnatal mothers who are present during the time of study

Exclusion Criteria

- Postnatal mothers who are seriously ill
- Postnatal mothers with both episiotomy and perineal tear
- Postnatal mothers with puerperal infection
- Postnatal mothers who have obstetric complications like GDM and PIH etc.

DESCRIPTION OF TOOL

The tool was designed in to two parts.

SECTION --A

To assess the demographic profile, the structured interview schedule was used. It comprised of demographic data of episiotomy wound healing such as age, educational status, occupation, family income, religion, gravida, mode of delivery, type of family. No score

was given to this demographic profile. The data was used for descriptive statistics.

SECTION--B

REEDA scale assessment of episiotomy wound healing.

REEDA acronym is used as a nursing tool when evaluating an episiotomy wound which is invented by **Nancy Davidson – (1974).** REEDA stands for redness, edema, ecchymosis (purplish patch of blood flow), discharge, and approximation (closeness of the skin edges). This tool is used to assess healing based on a 3 point scale; a score of 3 signifies an assessment of very poor wound healing.

SCORING INTERPRETATION

The scoring from 0-3 and it is used to assess the signs of infection.

0 - None

1 - Mild

2 - Moderate

3 - Severe

The level of infection was interrupted as follows;

Observational checklist of REEDA Scale is scored as no infection -0, mild infection 1-5, moderate infection 6-10 and severe infection 11-15.

Level of Infection	Score	Percentage %
No infection	0	0
Mild infection	1-5	7-33
Moderate infection	6-10	34- 66
Severe infection	11-15	67-100

VALIDITY

The content validity of the tool was corrected by five experts (4 nursing experts and 1 medical expert). There was no change made in the standardized tool.

RELIABILITY

The reliability of REEDA scale was assessed by inter-rater reliability method and Karl Pearson co-efficient formula. The tool was found to be reliable (0.98).

PILOT STUDY

The pilot study was conducted in Nivetha hospital- Dharapuram for a period of seven days. The investigator obtained written permission from medical officer and oral permission was obtained from each participant prior to the study. The purpose of the study was explained to the subjects prior to the study. The pilot study was conducted with 12 samples among this 6 samples for experimental group I and 6 samples for experimental group II. The samples who met the inclusive criteria were selected by purposive sampling method. Pretest was done by REEDA scale to assess the episiotomy wound healing for experimental group I& II. Then the intervention of betadine sitzbath was given 10-15 minutes, twice a day (morning & evening) for 3 days to experimental group I and post test was done with the same scale on 3rd day. Then the intervention of neem extract sitzbath was given 10-15 minutes, twice a day (morning & evening) for 3 days to experimental group II and the post test was done with the same scale on 3rd day.

The collected data was analyzed by using descriptive and inferential statistics. The paired " t " test value for experimental group I

was is 27.61 (table value= 2.57) at P<0.05 level of significance and for experimental group II was about 57.88 (table value =2.57) at P<0.05 level of significance should that there is a wound healing in neem extract sitzbath.

Independent 't' test calculated value was 5.66 (table value =2.228) at p<0.05 level of wound healing among neem extract sitz bath & betadine sitzbath. After the pilot study it was found that it is feasible & practicable to conduct the main study.

DATA COLLECTION PROCEDURE

The main study was conducted at Kasturba hospital – Dindugal for a period of four weeks. The investigator obtained written permission from the hospital medical officer and nursing superintendent. 0ral permission was obtained from the each participant prior to the study. The purpose of the study was explained to the subjects prior to the study.

The main study was conducted with 60 samples, and the samples were divided in to two groups (I&II). Among that 30 samples were experimental group I and other 30 samples were experimental group II , and who met the inclusion criteria were selected by purposive sampling technique. The experimental Group I from the postnatal ward I, and the experimental group II from their postnatal ward II. In this study 3-4 samples were selected per day.

The first two weeks the experimental group I was selected from the postnatal ward I and demographic variables were collected on the basis of inclusion criteria and pretest was conducted on the first day morning, the wound healing was assessed by REEDA scale. Then the

intervention of betadine sitz bath was given for 10-15 minutes, twice a day daily (Morning & Evening) for three days to experimental group I. Then the post test was done with the same scale on 3rd day evening in postnatal ward I.

Next two weeks of period, the experimental group II was selected from the postnatal ward II and demographic variables were collected on the basis of inclusion criteria and pretest was done on the first day morning, the wound healing was assessed by REEDA scale. Then the intervention of neem extract sitzbath was given for 10-15 minutes, twice a day daily (morning& evening) for three days to experimental group II. Then the post test level of wound healing was assessed with the same scale. The data were analyzed and tabulated using descriptive and inferential statistics.

PLANFOR DATA ANALYSIS

Data were analyzed by using descriptive and inferential statistics. The statistical methods will be used as follows:

DATA ANALYSIS	METHODS	OBJECTIVES
Descriptive statistics	Frequency percentage	To describe the demographic variables
Inferential Statistics	Mean, SD Frequency percentage	To assess the pre and posttest score
	Paired T Test	To compare the pre and posttest level of wound healing scores among postnatal mothers in exp – group I (Betadine sitzbath)

DATA ANALYSIS	METHODS	OBJECTIVES
		To compare the pre and posttest level of wound healing scores among postnatal mothers in exp – group II (Neem extract sitzbath)
	Independent T test	To compare the effectiveness of mean posttest level of wound healing scores among postnatal mothers between experimental group I & II.
	Chi – square test	To find the association between mean posttest level of wound healing scores among postnatal mothers with their demographic variables in experimental group I& II.

PROTECTION OF HUMAN SUBJECTS

The proposed study was conducted after the approval of dissertation committee. Written permission was obtained from medical officer and nursing superintendent of Kasturba hospital, Dindugal. Oral consent was obtained from each selected sample by explaining the purpose of the study before collecting the data and assessing the wound healing. Assurance was given to them that confidentiality was maintained throughout the study.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretations of the data collected to evaluate the effectiveness of neem extract sitz bath and betadine sitzbath in promoting wound healing among primi post natal mothers who were admitted in postnatal ward I&II in a Kasturba hospital at Dindugal. Data was collected from 60 primi postnatal mothers, were 30 mothers under experimental group I and 30 mothers under experimental group II by using REEDA scales. The data obtained were analyzed and presented under following headings.

ORGANIZATION OF DATA:

The data has been tabulated and organized as follows:

SECTION A	Assessment of the demographic variables in primi postnatal mothers.
SECTION B	Comparison of the pre test and post test level of wound healing scores among primi postnatal mothers in experimental group. I
SECTION C	Comparison of the pre test and post test level of wound healing scores among primi postnatal mothers in experimental group II.
SECTION D	Comparison of the post test level of wound healing scores among primi postnatal mothers between experimental group I and experimental group II
SECTION E	Association between post test level of wound healing scores among mothers in experimental group I &II with their selected demographic variables.

SECTION - A

TABLE : 1 Frequency percentage distribution of demographic variables

SI. No	Demographic Variables	Group –I N=30		Group –II N=30		Total N=60	
		F	%	F	%	F	%
1	**Age in years**						
	a) 15-25	20	67	20	67	40	67
	b) 26-35	10	33	10	33	20	33
	c) 36 & Above	0	0	0	0	0	0
2	**Educational Status**						
	a) No Formal	1	3	4	13	5	8
	b) Primary	8	27	6	20	14	23
	c) High School	2	7	8	27	10	17
	d) High Secondary	10	33	6	20	16	27
	e) Graduate and Post Graduate	9	30	6	20	15	25
3	**Occupation**						
	a) Housewife	21	70	17	56	38	64
	b) Farmer	0	0	0	0	0	0
	c) Office Worker	1	3	8	26	9	15
	d) Others	8	26	5	16	13	21
4	**Income per Month**						
	a) Rs. 3000&below	22	73	21	70	43	72
	b) Rs. 3001-5000	1	3	5	17	6	10
	c) Rs. 5001 & above	7	24	4	13	11	18

SI. No	Demographic Variables	Group –I N=30		Group –II N=30		Total N=60	
		F	%	F	%	F	%
5	**Religion**						
	Hindu	20	67	22	74	42	70

	Christain	8	26	4	13	12	20
	Muslim	2	6	4	13	6	10
6	**Type of family**						
	Nuclear	14	46	16	53	30	50
	Joint family	16	53	14	46	30	50

Table 1 shows the demographic variables among primi postnatal mothers in both experimental group I&II such as age, education, occupation, religion, income¸ type of family , mode of delivery, and gravida .

Regarding age in experimental group I, majority 20(67%) of primi mothers belonged to the age group of 15-25 years and 10(33%) belonged to age group of 26-35 Years. In experimental group II majority of mothers 20(67%) belonged to the age group of 15-25 years and 10(33%) belonged to the age group of 26-35 years.

With regard to education in experimental group I, majority of the mothers 10(33%) had higher secondary school. In experimental group II majority of the mothers 8(27%) had high school education.

Regarding occupation in experimental group I, majority of the mothers 21(70%) were house wives and least 1(3%) were office workers. In experimental group II majority of the mothers 17(56%) were house wives and least 5(16%) were coolie workers.

Regarding religion in experimental group I, majority of primi mothers 20(66%) were Hindu, and the least 2 (6%) were Muslims and 8(26%) were Christians. In experimental group II, majority of primi

mothers 22(73%) were Hindu, and 4(13%) were Muslims and 4(13%) were Christians.

In regard to income, in experimental group I majority of mothers 22(73%) had income Rs 3000&below, and least 1(3%) had income Rs 3001-5000. In experimental group II majority of mothers 21(70%) had income Rs 3000 & below .

Regarding type of family, in experimental group I majority of the primi mothers 14(47%) were from nuclear family and 16(53%) were from joint family. In experimental group II majority of the primi mothers 16(53%) were from nuclear family and 14(47%) were from joint family .

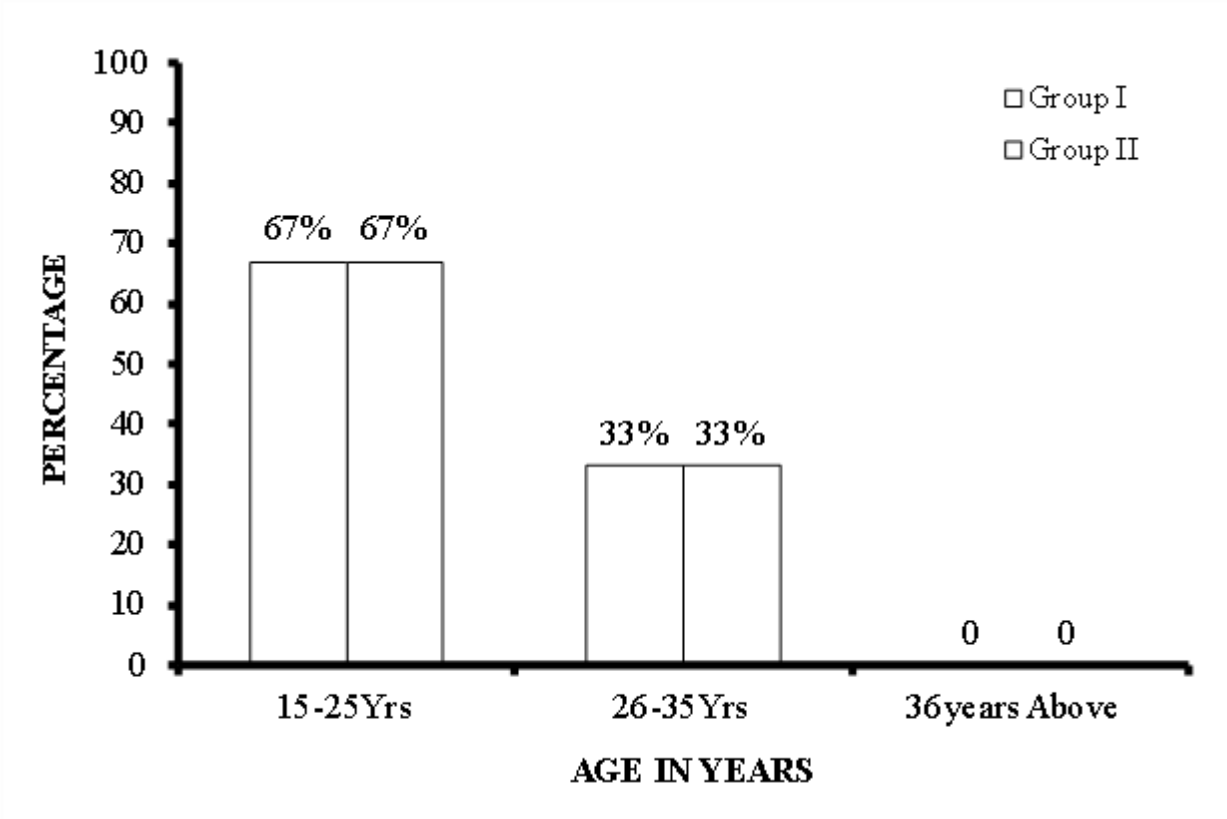


Fig:1.Frequency & Percentage distribution age in years of experimental group I &experimental group II

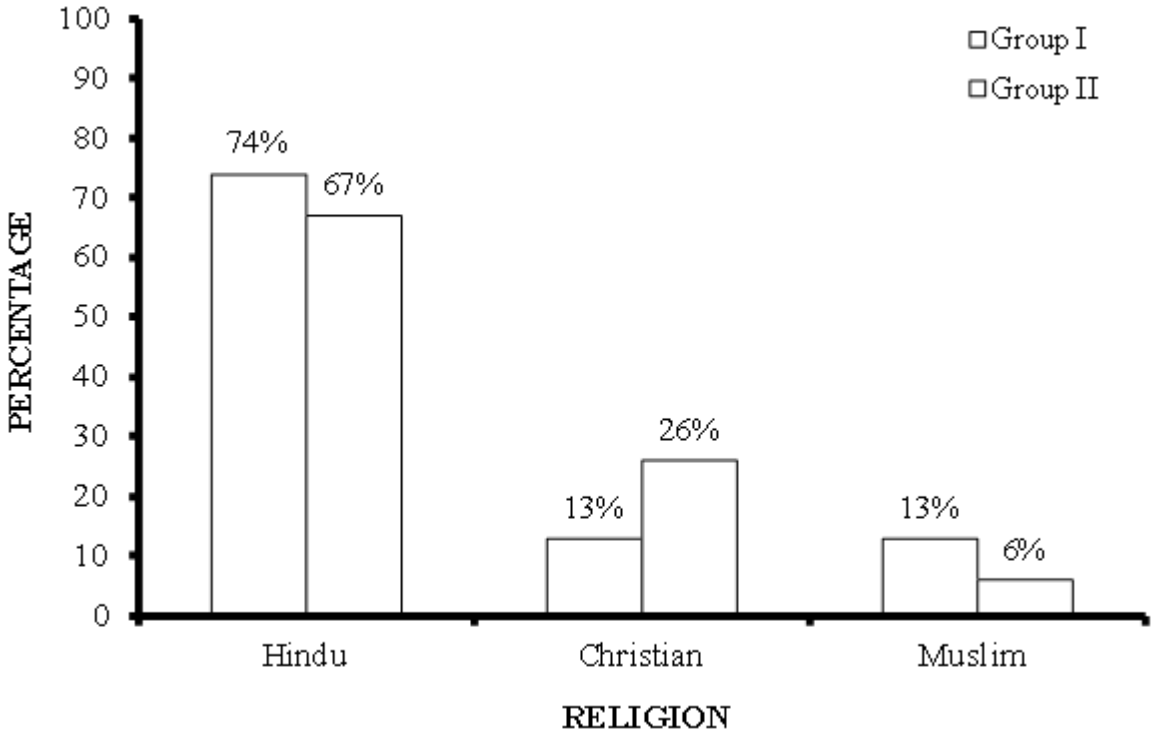


Fig:2. Frequency & Percentage distribution in religion of experimental group I &experimental group II

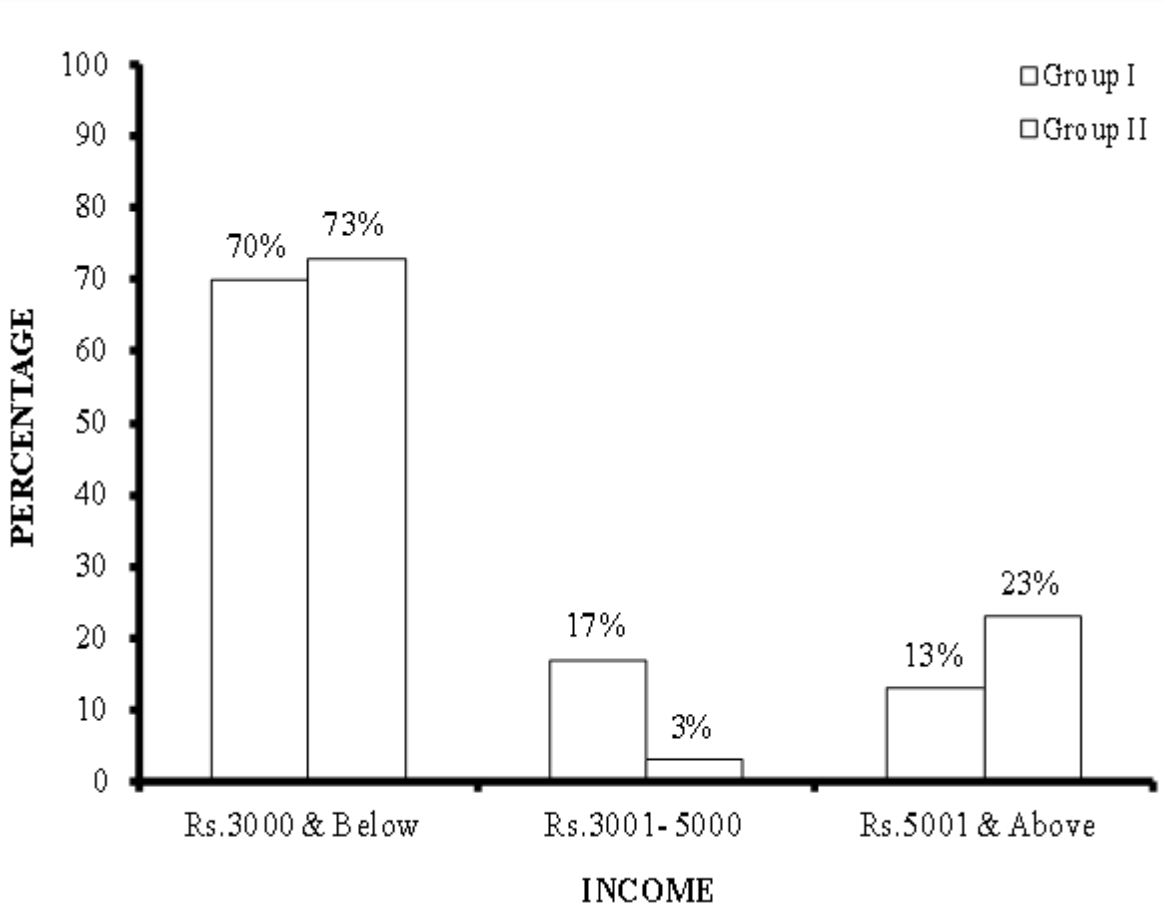


Fig: 3. Frequency & Percentage distribution in income per month of experimental group I & experimental Group II

SECTION B

COMPARISION OF PRETEST AND POSTTEST SCORE ON WOUND HEALING IN EXPERIMENTAL GROUP I

TABLE 2.1: Frequency and percentage distribution of pre test and post test level of wound healing in experimental group I

N=30

Level of infection	PRE TEST		POST TEST	
	NO	%	NO	%
No infection (0)	2	7	21	70
Mild infection(1-5)	27	90	9	30
Moderate infection(6-10)	1	3	-	-
Severe infection (11-15)	-	-	-	-

Table 2.1 Depicts that in experimental group in pretest 27(90%) primi mothers had mild infection. In the post test 21(70%) primi mothers had no infection and 9(30%) primi mothers had mild infection.

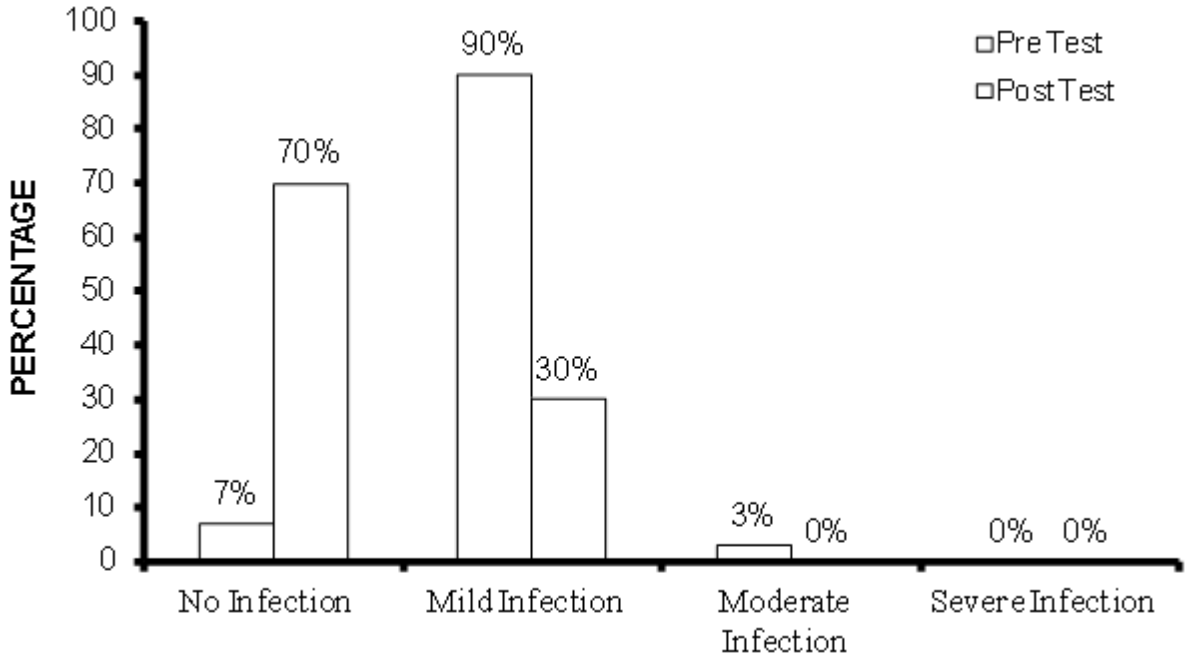


Fig:4 Comparison of frequency & Percentage distribution of pre and post test in experimental group I

TABLE: 2.2 **Comparison of Mean, Standard deviation, Mean difference and Paired "t" value between pretest and posttest score on wound healing in Group- I.**

n =30

SI. No	Group	N	Wound healing	Mean	SD	Mean difference	Paired 't'	Table Value
1	I	30	Pre test	9.3	1.104	8.74	38.870	2.060
			Post test	0.56	0.670			

df =29 P< 0.05^{***}

The table 2.2 indicates that the pretest mean score is 9.3 (SD=1.104) and post test mean score is 0.56 (SD=0.670) and the Paired " t " value is 38.870 which is significant at P<0.05 level.

From the mean scores it is clear that the patients in group I have a lower level of wound healing score in post test score than the pretest score and this indicates that there is an improvement of wound healing after betadine sitzbath.

SECTION C : COMPARISON OF PRETEST AND POSTTEST SCORE ON WOUND HEALING IN EXPERIMENTAL GROUP II

TABLE 3.1: Frequency and percentage distribution of pre test and post test level of wound healing in experimental Group-II

N=30

Level of infection	PRE TEST		POST TEST	
	NO	%	NO	%
No infection (0)	3	10	25	83.3
Mild infection(1-5)	24	80	5	16.7
Moderate infection(6-10)	3	10	-	-
Severe infection (11-15)	-	-	-	-

Table 3.1 depicts that in experimental group in pretest 24(80%) primi mothers had mild infection. In the post test majority 25(83.3%) primi mothers had no infection and 5(16.7%) primi mothers had mild infection.

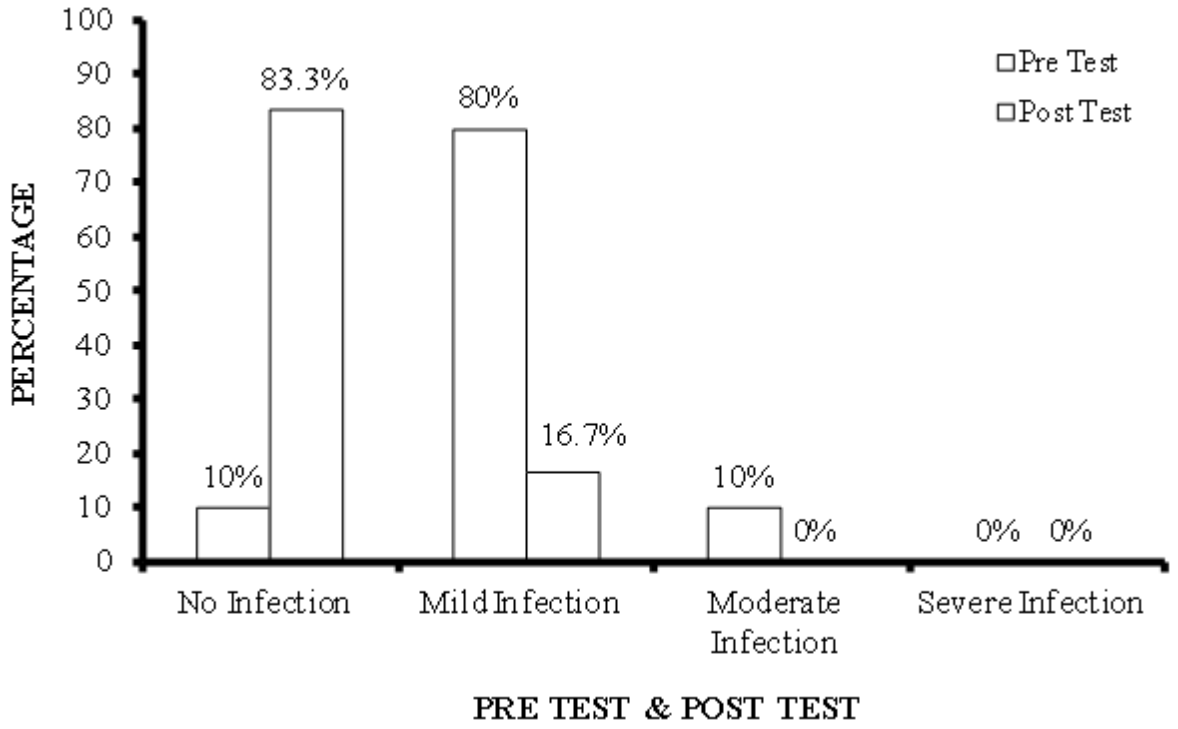


Fig .5. Comparison of frequency &percentage distribution of pretest &post test level of wound healing in experimental group II

TABLE 3.2 : Comparison of Mean, Standard deviation , Mean difference and Paired "t" value between pretest and posttest score on wound healing in group- II.

n=30

SI. No	Group	N	Wound healing Score	Mean	SD	Mean difference	Paired t value	Table Value
1.	II	30	Pre test	9.2	0.959	8.97	53.926	2.060
			Post test	0.23	0.424			

df = 29 $P<0.05^{***}$

Table 3.2 indicates that the pretest mean score is 9.2 (SD=0.959) and post test mean score is 0.23 (SD=0.424) and the Paired " t " value is 53.926, which is significant at P<0.05 level.

From the mean scores it is clear that the mothers in group I have a lower level of wound healing score in post test score than the pretest score and this indicates that there is an improvement of wound healing after neem extract sitzbath.

SECTION: D **COMPARISION OF POST TEST SCORE ON WOUND HEALING IN EXPERIMENTAL GROUP I & II.**

Table 4.1 Comparison of Mean, standard deviation, Mean difference and Independent "t" value between betadine sitzbath and Neem extract sitzbath on wound healing score in group I&II.

n=60

SI. No	Group	N	Wound healing score	Mean	SD	Mean difference	independent "t" value	Table Value
1.	I	30	After betadine sitzbath	0.56	0.670	0.33	2.537	2.001
2.	II	30	After Neem Extract sitzbath	0.23	0.424			

df = 58 P<0.05***

This table 4.1 indicates that mean score of wound healing after betadine sitztbath is 0.56 (SD=0.670) and mean score of wound healing after neem extract sitzbath is 0.23 (SD=0.424) respectively.

The Independent 't' value obtained for wound healing score is 2.537. This is significant at P< 0.05 level. From the mean scores it is clear that the mothers in group II have a lower level of wound healing score than group I

SECTION-E: ASSOCIATION BETWEEN POST TEST LEVEL OF WOUND HEALING SCORE AMONG MOTHERS IN EXPERIMENTAL GROUP I & II WITH THEIR SELECTED DEMOGRAPHIC VARIABLES .

TABLE ; 5.1 Association between post test score level of wound healing score among mothers in experimental group I with their selected demographic variables. (Betadine sitzbath)

S. No	Demographic Variables	Episiotomy Wound Healing						X2	Table Value	Inference
		No infection		Mild infection		Moderate infection				
		N	F	N	F	N	F			
1	**Age in years**									
	15-25	3	10	7	23	2	7	4.17	12.59 (df=6)	NS
	26-35	8	27	7	23	1	3			
	36 & Above	-	-	2	7	-	-			
2	**Educational Status**									
	No Formal	2	7	-	-	-	-			
	Primary	-	-	2	7	1	3			
	High School	5	17	12	40	2	7	10.02	2.178 (df=12)	S
	High Secondary	1	3	1	3	-	-			
	Graduate & Post Graduate	3	10	1	3	-	-			
3	**Occupation**									
	Housewife	7	23	12	40	3	10	7.8	2.262 (df=9)	S
	Farmer	-	-	3	10	-	-			
	Office worker	2	7	-	-	-	-			
	Others	2	7	1	3	-	-			

S.	Demographic	Episiotomy Wound Healing

No	Variables	No infection		Mild infection		Moderate infection		X2	Table Value	Inference
		N	F	N	F	N	F			
4	**Income per Month**									
	Rs.3000&below	4	13	10	33	2	7	3.51	12.59 (df=6)	NS
	Rs. 3001-5000	4	13	5	17	1	3			
	Rs. 5001 & above	3	10	1	-	-	-			
5	**Religion**									
	Hindu	4	13	9	30	3	10	5.3	12.59 (df=6)	NS
	Christian	4	13	2	7	-	-			
	Muslim	3	10	5	17	-	-			
6	**Type of family**									
	Nuclear	11	37	4	13	5	17	2.01	3.182 (df=3)	NS
	Joint family	3	10	4	13	3	10			

Chi square test was done to find the association between the post test levels of episiotomy wound healing in group I with their selected demographic variables.

TABLE 5.1 shows the association between the post test level of wound healing in experimental group I with their selected demographic variable of age, educational status, Occupation, Income, Religion, type of family. The findings revealed that there was no significant association between the level of wound healing and their selected demographic variables in experimental group-I

TABLE 5.2 Association between post test e level of wound healing score among mothers in experimental group II with their selected demographic variables. (Neem extract sitzbath)

SI. No	Demographic Variables	Episiotomy Wound Healing						X2	Table Value	Infer ence
		No infection		Mild infection		Moderate				
		No	F	No	F	No.	F			
1	**Age in years**									
	15-25	13	43	4	14	-	-	1.424	12.59 (df=6)	NS
	26-35	10	33	1	3	-	-			
	36& Above	2	7	-	-	-	-			
2	**Educational Status**									
	No Formal	2	7	-	-	-	-			
	Primary	3	10	-	-	-	-	5.97	2.178 (df=12)	S
	High School	13	43	2	7	-	-			
	High Secondary	4	13	3	10	-	-			
	Graduate & Post Graduate	3	10	-	-	-	-			
3	**Occupation**									
	Housewife	9	30	3	10	-	-			
	Farmer	10	33	-	-	-	-	3.151	2.262 (df=9)	S
	Office Worker	2	7	-	-	-	-			
	Others	4	13	2	7	-	-			

SI.	Demographic	Episiotomy Wound Healing			X2	Table	Infer
		No	Mild	Moderate			

No	Variables	infection		infection					Value	ence
		No	F	No	F	No.	F			
4	**Income per Month**									
	Rs.3000&below	16	53	4	14	-	-	0.67	12.59	NS
	Rs. 3001-5000	7	23	1	3	-	-		(df=6)	
	Rs.5001 & above	2	7	-	-	-	-			
5	**Religion**									
	Hindu	16	53	4	14	-	-	5.291	12.59	NS
	Christian	7	23	1	3	-	-		(df=6)	
	Muslim	2	7	-	-	-	-			
6	**Type of family**									
	Nuclear	13	43	3	10	-	-	0.119	3.182	NS
	Joint family	12	40	2	7	-	-		(df=3)	

Chi square test was done to find the association between the post test level of episiotomy wound healing in experimental group II with their selected demographic variables.

Table 5.2 ; shows the association between the post test level of wound healing in experimental group II with their selected demographic variable of age, educational status, Occupation, Income, Religion, type of family. The findings revealed that there was no significant association between the level of wound healing and their selected demographic variables in experimental group-II

CHAPTER – V

RESULTS AND DISCUSSION

The study was undertaken to compare the effectiveness of Betadine sitzbath and Neem extract sitzbath on episiotomy wound healing among postnatal mothers. Before and after intervention, episiotomy wound healing of group I (Betadine sitzbath) and group II (Neem Extract Sitzbath) was measured by using REEDA Scale for assessment of perineal wound area. The results and discussion of the study are based on the findings obtained from the statistical analysis. To compare the scores of pretest and post test of the same group, paired t-test was used whereas to compare the post test results of group I and group II, independent t-test was used and chi-square was used to find the association between selected demographic variables and final post test results in Betadine sitzbath and Neem Extract sitzbath on episiotomy wound healing.

FINDINGS OF THE STUDY:-

DEMOGRAPHIC CHARATERISTICS;.

Fig;1. Regarding age in experimental group I, majority 20(67%) of primi mothers belonged to the age group of 15-25 years and 10(33%) belonged to age group of 26-35 Years. In experimental group II majority of mothers 20(67%) belonged to the age group of 15-25 years and 10(33%) belonged to the age group of 26-35 years.

With regard to education in experimental group I, majority of the mothers 10(33%) had higher secondary school education. In experimental group II majority of the mothers 8(27%) had high school education.

Regarding occupation in experimental group I, majority of the mothers 21(70%) were house wives and least 1(3%) was office worker.

In experimental group II majority of the mothers 17(56%) were house wives and least 5(16%) were coolie workers.

Fig;.2 Regarding religion in experimental group I, majority of primi mothers 20(66%) were Hindus, and the least 2 (6%) were Muslims and 8(26%) were Christians. In experimental group II, majority of primi mothers 22(73%) were Hindus, and 4(13%) were Muslims and 4(13%) were Christians.

Fig;.3 In regard to income, in experimental group I majority of mothers 22(73%) had income Rs 3000&below, and least 1(3%) had income Rs 3001-5000. In experimental group II majority of mothers 21(70%) had income Rs 3000&below .

Regarding type of family, in experimental group I majority of the primi mothers 14(47%) were from nuclear family and 16(53%) were from joint family. In experimental group II majority of the primi mothers 16(53%) were from nuclear family and 14(47%) were from joint family .

The first objective of the study was to compare the pre and post test level of wound healing among mothers in experimental group I (Betadine sitzbath) .

The mean wound healing score in experimental group I before betadine sitzbath is 9.3 (SD±1.104) and after Betadine sitzhbath is 0.56 (SD±0.670) respectively. The paired t-test value is 38.870 ,which is significant at $P<0.05$ level .

The study findings were consistent with the findings of **Fernandez. R. Griffiths.R (2 008)** performed to investigate the

effectiveness of Povidine -Iodine sitzbath for episiotomy wound healing in primi postnatal mothers. The findings shows that the mean post test score is 0.27 (SD±0.514) ,the mother had adequate wound healing and the pre test score is 0.83 (SD±0.728) shows poor wound healing.Analysis reveales that there was significant difference between the mean wound healing score of the post natal mothers in the pretest &post test scores. Therefore povidine – Iodine (10%) can be used as wound healing agent. Hence the research hypothesis H1; There is a significant difference between the mean pretest & posttest scores of betadine sitzbath on episiotomy wound healng among postnatal mothers in experimental group I was accepted.

The Second objective of the study was to compare the pre and post test level of wound healing among mothers in experimental group II (Neem extract sitzbath)

The mean wound healing score in experimental group II before Neem extract sitzbath is 9.2 (SD±0.959) and after Neem extract sitzhbath is 0.23 (SD±0.424) respectively. The paired t-test value is 53.926, which is significant at $P<0.05$ level .

The study findings were consistent with the findings of **Gouin. S. Patel.H (2001**) performed to investigate the effectiveness of neem extract sitzbath for episiotomy wound healing in primi postnatal mothers. The findings shows that in paired "t" test the calculated value is 2.82 is more than the table value is 1.701. .Analysis revealed that there was significant difference between mean wound healing score of the post natal mothers in the pretest &posttest scores. Therefore neem extract sitzbath can be used as wound healing agent. Hence the research hypothesis H2 ; There is a significant difference between the

mean pretest & posttest scores of neem extract sitzbath on episiotomy wound healng among postnatal mothers in experimental group II was accepted.

The third objective of the study was to compare the effectiveness of post test score of wound healing among mothers between experimental group I & II .

The mean post test wound healing score in group I is about 0.56 (SD±0.670) and group II is about 0.23 (SD±0.424) respectively. The independent t-test value 2.537 ($p<0.05$). The calculated value is more than the table value.

The study findings were consistent with the findings of **Seena.M., (2008)** performed to investigate the effectiveness of Betadine sitzbath & Neem extract sitzbath in wound healing in postnatal mothers. After intervention, 10% of them from experimental group I developed mild infection and none of participants from experimental group II had infection in observation . The result shows that there is a significant wound healing after Neem extract sitzbath in experimental group II than after betadine sitzbath in experimental group I that the mean post test score is7.10 (SD±1.768). The calculated Independent 't' value (2.647) was greater than the expected value of 't'(2.0). Hence the hypothesis H3: There is a significant difference between the mean post test score of betadine sitzbath and mean post test score of neem extract sitzbath on episiotomy wound healing among postnatal mothers in experimental group I & II was accepted .

Therefore it is clearly proved by this study that Neem Extract Sitzbath is effective more than betadine sitz bath on episiotomy wound healing.

The fourth objective of the study was to find out the association between the post test score of Betadine Sitzbath on episiotomy wound healing with their selected demographic variables.

Chi-square values were calculated and the results shows that there was no significant association found between the post test level of wound healing among primi postnatal mothers with their selected demographic variables in experimental group – 1

The study findings were consistent with the findings of ROMERGER M., (2008), in which age of mother, education, occupation, family income, has no significant association with demographic variables and wound healing in experimental group. Hence the hypothesis.

H4: There will be a significant association between the mean post score on wound healing among mothers in experimental group 1 with their selected demographic variable was rejected.

The fifth objective of the study was to find out the association between the post test scores of neem extract Sitzbath on episiotomy wound healing with their selected demographic variables.

Chi-square values were calculated and the results showed that there was no significant association found between the post test level of wound healing among primi postnatal mothers with their selected demographic variables in experimental group – II

The study findings were consistent with the findings of HSUKF, CHIASJS, JAOSW, GANEVA., (2000) in which age of mother, education, occupation, family income, has no significant association

with their selected demographic variables and would healing in experimental group. Hence the hypothesis

H5: there is a significant association between post test score of wound healing among primi postnatal mothers in experimental group 11with their selected demographic variables was rejected.

From the above discussion it is concluded that Neem Extract Sitzbath has better effect on episiotomy wound healing than Betadine sitzbath.

CHAPTER VI

SUMMARY, CONCLUSION, IMPLICATIONS, RECOMMENDATIONS AND LIMITATION

This chapter deals with:

- Summary of the study
- Conclusion
- Implications for nursing
- Recommendations
- Limitations

SUMMARY OF THE STUDY

The study was done to evaluate the effectiveness betadine sitzbath and Neem Extract Sitzbath on episiotomy wound healing, among primi postnatal mothers.

The research approach used for the study was evaluative approach. The research design used for this study was quasi experimental research design. The study was conducted at Kasturba Hospital at Dindugul. Conceptual frame work adopted for the present study was modified "Kings Goal Attainment Model". The sample size was sixty primi postnatal mothers undergone episiotomy, thirty in experimental group I and thirty in Experimental group II. The samples were selected by purposive sampling technique and were assessed for the level of episiotomy wound healing during postnatal period using the following REEDA scales.

The "REEDA Scale" was used to measure the level of wound healing. The investigator selected the mothers who met inclusion criteria by using purposive sampling and pre test was done for both experimental group I and Experimental group II. Then the intervention of betadine sitzbath and neem extract sitzbath was given twice a day

every morning and Evening for 10 minutes for three days. Then the post test level of wound healing was assessed third day evening by using REEDA scale for both groups. The data was analyzed and tabulated using descriptive and inferential statistics.

MAJOR FINDINGS OF THE STUDY

Distribution of demographic characteristics of the primi postnatal Mother's in experimental group.

- Among 60 postnatal mothers with episiotomy wound incision, most of the mothers 20 (67%) under the age group 15-25 years in group I and 20(67%) were under the age group of 15-25 years in group II.
- With regard to educational status, 10 (33%) of the postnatal mothers having higher secondary education in group I and 8(27%) were high school education in group II.
- Majority of the postnatal mothers were housewives 21(70%) in group I and 17 (56%) in group II.
- In group I, the 22 (73%) the postnatal mothers were having the family income of Rs.3000 and below and group II , the 21 (70%) were having the family income of Rs. 3000 and below .
- Regarding gravida 100% of the postnatal mothers were primi gravid woman in group I and group II.
- 100% (60) of postnatal mother had normal vaginal delivery.
- 100% (60) of postnatal mothers used absorbable suture materials.
- Regarding Religion majority 20 (67%) postnatal mothers belongs to Hindu religion in group I and 22(73%) were in group II.

- Regarding type of family the majority 16(53%)of the postnatal mothers belongs to joint family in group I and the majority 16(53%) of the postnatal mothers were from Nuclear family in group II.

In experimental group I the post test level of wound healing mean score, 0.56(SD±0.670) is lower than the pre test mean scoring 9.3(SD±1.104). The paired't' value for experimental group I was 38.870 (table value= 2.060) is significant at P< 0.05 level. In experimental group II , the post test mean score 0.23(SD±0.424) which is lower than the pre test mean score 9.2(SD±0.959). The paired't' value for experimental group II was 53.926 (table value= 2.060) which is significant at P< 0.05 level.

Independent "t" value was 2.537 (table value=2.001) which is significant at P<0.05 level. It indicates that there is a significant difference between the post test level of wound healing between experimental group I& II.

No significant association was found between post test level of wound healing in relation to age, income, gravida, mode of delivery, religion, type of family (P<0.05) in experimental group I & II.

The study revealed that Neem extract sitzbath was highly effective in improvement of episiotomy wound healing among primi post natal mothers.

CONCLUSION

- The present study was done to assess the effectiveness of Betadine sitz bath and Neem Extract sitzbath among primi

postnatal mothers with episiotomy wound healing during postnatal period in Kasturba hospital at Dindugal. Based on statistical findings, the mean post test score of experimental group II (0.23 (SD±0.424)) was significantly lower than the mean post test score of experimental score of group I (0.56 (SD±0.670)). Independent 't' value was 2.537 (table value= 2.001) which is significant at P< 0.05. Therefore the investigator felt that there is a significant difference on episiotomy wound healing between Neem extract sitzbath and Betadine sitzbath.

- Statistically proved that neem extract sitzbath is more effective in episiotomy wound healing than betadine sitzbath among postnatal mothers

IMPLICATIONS:

IMPLICATION FOR NURSING SERVICE

- The nurses can practice betadine and neem extract sitz bath along with routine perineal care is improving the wound healing on postnatal mothers with episiotomy.
- Nurses as the change agent can introduce various preventive measures to prevent infection on postnatal mothers with episiotomy.

IMPLICATIONS FOR NURSING EDUCATION

- The nurse educator can orient the students with alternative therapies and promoting wound healing in betadine sitzbath and Neem Extract sitzbath.
- The nurse educator can include information on Neem Extract and betadine and sitz bath in the clinical rounds and clinical presentation.
- Nurse educator can conduct workshops on alternative therapies to update the knowledge and help students to provide effective care.

IMPLICATIONS FOR NURSING ADMINISTRATION:

- The nurse administrator should conduct in-service education to nursing personnel regarding other measures used for wound healing.
- Workshops, seminars about the effectiveness of Neem Extract sitzbath and Beatine sitzbath and episiotomy wound can be made available to nursing staff in wards and nurse education in institute.
- Nurse administrators have the responsibility as creating awareness among primi postnatal mothers regarding the effectiveness of Neem Extract & Betadine sitz bath by facilitating free distribution of pamphlet to the post natal wards.
- The nurse educator can provide in-service education to nursing students to update their knowledge and practice using Neem Extract sitzbath and Betadine sitz bath among women in postnatal period with episiotomy wound.

IMPLICATIONS FOR NURSING RESEARCH

- The finding of this study can be effectively utilized by the emerging researchers for their reference purpose.
- The research study enhances the body of knowledge in nursing science.

RECOMMENDATIONS

- Similar study can be conducted for a large group.
- A comparative study can also be done between the effectiveness of various alternative therapies for episiotomy wound healing.
- A comparative study can be done among primi mothers and multi mothers.
- Similar study can be conducted for the women who are suffering with vaginal injuries.

Similar study can be conducted for who are suffering with ano-rectal injuries

LIMITATIONS

- Since it is a new procedure to most of the mothers the researcher found difficulty in making them to understand the merits.
- More privacy was needed to do the procedure.

BIBLIOGRAPHY

BOOKS:

1. Bobar Lowdermilk, et.al.,(1995).”**Maternity nursing**”, (4th ed.). Mosbys company. Pp 302-304.
2. Daftary,(2004).”**Manuel of obstetrics**”,(1st ed.). New Delhi: Elsevier India private ltd. Pp 204.
3. Duttta. D.C.,(2004).”**Textbook of Obstetrics**”, (4thed). Calcutta: New central book agency. Pp 568-571
4. Fraser,D.M.et.al.(2003).”**Myles Text Book of Midwives**”, (14th ed.).Edinburgh:Churchill Livingstone.
5. George.B,(1995).”**Nursing Theories**”,(4th ed.).California: A Pearson Education Company.Pp 468
6. Gurumani.N,(2005).” **An Introduction To Biostatitics”,** (2nd ed).Chennai: MJP Publishers. Pp 212-215.
7. Jacob Annamma,(2005).” A **Comprehensive Text Book of Midwifery**”, (1st ed.). New Delhi: Jaypee brothers. Pp 516.
8. Lewis, et.al.(2004). “**Medical surgical nursing**”, (7th ed.). London: Mosby company.
9. Littleton.Y.(2007). ”**Maternity** N**ursing Care**”, (1sted.). Haryana: Sanat printers. Pp 352-354.
10. Marriner Ann.,(202). ”**Nursing theories and its Work**”, (3rd ed.). Philadelphia: Mosby Publication. Pp 184.
11. Martin., and Reader.,(1997). “**Maternity Nursing**”, (18th d.). New York: Lippincott. Pp 561-564.
12. Mahajan B.K.(2005).”**Methods of Biostatistics**,” (6th ed.). New Delhi: Jaypee Brothers Medical Publishers. Pp 128.
13. Murray., and Mc Kinney.,,(1998).”**Foundation of Maternal –Newborn Nursing**”, (2nd ed.). Pennyslavia: W.B Sounders Company. Pp 408-409.

14. Pillitteri adele .(2003).” **Maternal and child health Nursing**”, (8th ed.). Philadelphia: Lippincott Williams & Wilkims. Pp 512-514.
15. Polit. D.F.,(2008).” **Introduction to Nursing Research**”, (8th ed.). Philadelphia: Lippincott Publications. Pp 344-345, 592.
16. Polit, and Hungler.,(1999). “**Nursing research**”,(6th ed.). Philadelphia: Lippincott. Pp 308,343,472.
17. Sunder Rao.P.S.,(1999).”**An Introduction to Biostatistics**”, (3rd ed.). New Delhi: Vora Medical Publication. Pp 94,100.

JOURNALS

18. **Beger.D (1998)** Postpartum teaching priorities the view points of nurses and Mothers , Journal of Obstetrics, Gynaecological and Neonatal Nursing, 27 (2),161.
19. **Calvert . Et al (2000),** Review minimizing postpartum parvia of research pertaining to perineal care in child bearing women. Journal of advanced nursing ,32 (2) 407
20. **Coats et . al (1980),** A comparision between midline and mediolateral episiotomies. British Journals of obstetrics and gynaecology, 87, 407.
21. **Dimitrov A., et.al (2000)** Causes for healing complications in episiotomy , article in Bulgarian, 40 (4), 17-21
22. **Rhode M.A. and Barger M.K. (1996),** Perineal care then and now . Journal of nurse midwifery, 35 (4), 220-230 .
23. **Sally I.L. (1986),** Episiotomy repair - immediate and long term sequlae. A prospective randomized study of three different methods of repair. British journals of obstetrics and gynaecology , 93 , 1920.

24. **Judith Noronha (2003)** Effectiveness of self perineal care on episiotomy wound healing. The Indian journal of nursing and midwifery , 6 (1), 25-39.
25. **Grundy , L. (1997).** The role of the midwife in perineal wound care following childbirth. British Journal of nursing, 6(10), 584-8.
26. **Hill, P.D. (1989).** Effects of medicated and non-medicated sitzbath on perineum after episiotomy / laceration . Journal of Obstetrics & Gynaecology Neonatal Nursing, 18(2), 124-9.
27. **Lowrence J.C. (1998).** A povidine – iodine medicated wound healing . Journal of wound care, 7(7), 332-6.
28. **Esther.J.(2009)"**Effect Of povidine-iodine on wound healing ", Nightingale Nursing times,11(4),60-67.
29. **Dhanalakshmi.J.(2010)**."Best Remedial Measure for episiotomy", Nightingale Nursing times, 12(5). Pp 12-16.
30. **Venkadalakshmi.(2010)**"effect of neem leaf extract ", The Nursing Journel Of India., 86.(4),7-12.
31. **Srisangchai.P.(2007**)."The benefits of neem leaf extract", The Journal of wound care **,**102(4). Pp 17-19.
32. **Banta, D. and Thacker, S.B, (1982).** " The medical properties of neem leafs ; a revew , Britt, 9(1), 25-30.
33. **MHFW.(2010).**"Care of Vaginal Delivery", Nightingale Nursing times**,** 6(3). Pp 19-20
34. **Paul.S.(2005**)."Road to Wound Healing" Nightingale Nursing times**,**(1)3. Pp 12-14.
35. **Ministry Of Health and Family Welfare(2005).**"Postnatal Care", Nightingale Nursing time**s**,(9)4. Pp 45-47.

36. **World Health Organisation.(2005)**" Women At Risk Of Complicating Deliveries", Nightingale Nursing times,(4)10. Pp 46-47.

WEBSITES

37. www.therapy/health pages.org
38. www.research/reports
39. www. baby centre india.com/au/massage.html
40. www.tcumn.edn
41. www. wikipedia org/wiki/neem leafs.com
42. www. bookself. com
43. www.episiotomy.guide
44. www. research report.com

ANNEXURE-I

LETTER SEEKING PERMISSION TO CONDUCT A RESEARCH STUDY

TO WHOM SO EVER IT MAY CONCERN

Dr. T.S.SOUNDRAM
FOUNDER
Dr. R. KOUSALYA DEVI
ADVISER
Dr. INDRU TUPULUR
ASSOCIATE ADVISER

"Success Attends Where Truth Reigns"
- Gandhiji's message
on the inauguration of Gandhigram in 1947

KASTURBA HOSPITAL
(A UNIT OF GANDHIGRAM TRUST)
GANDHIGRAM - 624 302
Dindigul District
Tamil Nadu
Phone : 0451 - 2452328
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e-mail : mdu_khggt@sancharnet.in

Ref.No.2851/2013-Trg. Date : 07.08.2014

CERTIFICATE

Certified that Mrs.C.Muthumari, M.Sc. (Nursing) Second Year Student, has done a project on "A study to evaluate the effectiveness of Betadine Sitz Bath versus Neem Extract Sitz Bath on episiotomy wound healing for postnatal mothers" at Kasturba Hospital, Gandhigram from 05.08.2013 to 31.08.2013.

(Dr.R.KOUSALYA DEVI)
ADVISER

ANNEXURE-II

DESCRIPTION OF TOOL

SECTION – A

DEMOGRAPHIC CHARACTERISTICS

A structured interview schedule was used to assess the demographic data of the post natal mothers such as age, educational status, Occupation, income, religion.

SECTION – B

It consist of REEDA – scale for assessment of episiotomy wound healing. The scoring from 0 – 3 and it used to assess the signs of infection.

According to this scoring the mothers were classified into various catogories of wound healing.

SCORE	INTERPRETATION
0	No Infection
1 – 5	Mild Infection
6 – 10	Moderate Infection
11 - 15	Severe Infection

PART- I

DEMOGRAPHIC CHARACTERISTICS

Instruction: Tick ( ) the correct answer:

1. Age
   a) 15-25 years
   b) 26-35 years
   c) 36 and above
2. Educational Status
   a) No formal
   b) Primary
   c) High School
   d) Higher Secondary
   e) Graduate and post Graduate
3. Occupation
   a) House wife
   b) Farmer
   c) Office worker
   d) Others
4. Income
   a) 3000 and below
   b) 3001 – Rs.5,000
   c) Rs.5,001 and above
5. Religion
   a) Hindu
   b) Christian
   c) Muslim
6. Type of family
   a) Nuclear
   b) Joint

PART-II

REEDA SCALE ASSESMENT FOR PERINEAL WOUND AREA

1. Redness of the perineal area ----------

Score --------

0 - None

1 - Within .25cm of Incision bilaterally

2 - within .5cm of Incision bilaterally

3 - Beyone .5cm of Incision bilaterally

2. Edema of the perineal area ----------

Score ---------

0 - None

1 - Perineal,lessthan1cm from incision

2 - Perineal,and /or vulvar, between 1-2cm from incision

3 - Perineal,and /or vulvar, greaerthan 2cm from incision

3. Ecchymosis of the perinealy area_____

score _____

0 - None

1 - within 0.25cm bilaterally or .5cm unilaterlly

2 - between .25cm -1cm bilaterlly or between 0.5- 2cm unilaterally

3 - greaterthan 1cm bilaterally or 2cm unilaterally

4. Discharge from the wound _____

score _____

0 - None

1 - Serum

2 - Serosanguinous

3 - Bloody, purulent

5. Approximation of skin edges _____

Score _____

0 - closed

1 - Skin seperation 3mm or less

2 - Skin and subcutaneous fatseperation

3 - Skin and subcutaneous fat and facial layer seperation

Total REEDA Score = 15 Total Score_____

Scoring

0 : No infection

1-5 : Mild Infection

6-10 : Moderate infection

11-15 : Severe infection

ANNEXURE-III

INTERVENTION

SITZ BATH

Definition: It is also known as a hip bath, a sitz bath involves immersion of the pelvic area in warm or hot water.

Purposes:

- To relieve discomfort
- To promote wound healing by cleansing the perineum
- To increase the circulation
- To reduce inflammation
- It helps to relax local muscles

Equipments:

- Sitz bath/Stainless Steel basin
- Rubber mat
- Lotion thermometer
- Two bath blankets
- Towels
- Hospital gown
- Gloves
- Povidine-Iodine solution 10%
- Neem paste with bowl
- Clean Perineal Pads

(A) PREPARATIONS OF BETADINE SITZ BATH

Take a clean sitz tub/stainless steel basin containing 5 litres of water or one-third to one-half full, add 10ml of povidine-Iodine 10% solution.

Procedure:

- Explain the procedure to the patient
- Provide screens for privacy
- Ask the mother to wear the hospital gown and thoroughly wash the Perineal area.
- Spread the rubber mat, kept the stainless basin (Betadine solution)
- Check the water temperature with lotion thermometer is about 105^{o} F
- Allow the mother to immerse the perineum for fifteen to twenty minutes
- Repeat this application for two times a day

After Care:

- Dry the area thoroughly
- Keep the clean perineal pads

(B) PREPARATION NEEM EXTRACT SITZ BATH

Take fresh neem leaves, grind it well till it becomes paste; then take 30gms neem paste and add 5 liters of water, mix it well and boil, filter and pour into the basin.

Procedure:

- Explain the procedure to the patient
- Provide screens for privacy
- Ask the mother to wear the hospital gown and thoroughly wash the Perineal area.
- Spread the rubber mat, kept the stainless basin (Neem extract solution)
- Check the water temperature with lotion thermometer is about 105^{o} F
- Allow the mother to immerse the perineum for fifteen to twenty minutes
- Repeat this intervention for two times a day

After Care:

- Dry the area thoroughly
- Keep the clean Perineal pads

ANNEXURE – IV

LETTER REQUESTING OPINION AND SUGGESTING OF EXPERTS FOR CONTENT VALIDITY OF THE RESEARCH TOOL

From:

C.Muthumari
1st Year M.Sc(Nursing)
Sara Nursing College,
Dharapuram.

To:

Through: The Principal
Sara Nursing College,
Dharapuram.

Respected Sir / Madam

Sub : Request letter to gather opinion and suggestion of expert for establishing content validity of the research tool.

I am C.Muthumari, M.Sc(Nursing), student of Sara Nursing college, dharapuram, as a partial fulfillment of master degree in nursing, I have undertaken the following research study which has to be submitted to the Tamil Nadu Dr.M.G.R.Medical University, Chennai.

Respected Study: **"A Study to evaluate the effectiveness of Betadine Sitz Bath versus Neem extract Sitz Bath on episiotomy wound healing among post natal mothers"**

Herewith I have enclosed

- Statement of the problem
- Objectives of the study
- Tool - I - Structured interview schedule
- Tool – II - REEDA – Scale assessment for episiotomy wound healing
- Intervention – Betadine Sitz Bath and Neem extract Sitz Bath
- Content Validity Certificate

I request you to kindly validate the tool and give expert opinion for necessary modification.

Thanking you

Yours obediently

Place :
Date :

ANNEXURE – V

CONTENT VALIDITY CERTIFICATE

I hereby certify that, I have validated the tool of Mrs C.MUTHUMARI first year MSc Nursing Student of Sara Nursing College –Dharapuram, Who undertaken dissertaion work on **A COMPARATIVE STUDY TO ASSESS THE EFFECTIVENESS OF NEEM EXTRACT SITZBATH VERSUS BETADINE SITZ BATH ON EPISIOTOMY WOUND HEALING AMONG POSTNATAL MOTHERS AT DINDUGAL HOSPITAL.**

Signature of expert :

Name :

Designation :

Date :

Place :

ANNEXURE – VI

LIST OF EXPERTS VALIDATED THE TOOLS

Dr. Deivamathi, M.B.B.S., D.G.O.
Obstetrician and Gynecologist,
Nevathetha Hospital,
Dharapuram – 638656
Tamil Nadu.

Prof.A.Meena, M.Sc.(Nursing)
Head, Department of OBG
Annapoorna College of Nursing
Salem

Mrs.R.Aarthy Sodi, M.Sc.(Nursing), Ph.D.,
Asst. Professor
Department of OBG
Sacred Heart Nursing College
Madurai

Mrs.P.L.Murugalakshmi, M.Sc.(Nursing)
Asst. Professor.
Department of OBG
Shri K.Ramachandra Naidu College of Nursing
Sankaran Koil.

Prof. Murugeswari, M.Sc.(Nursing)
Asst. Professor.
Department of OBG

Shri K.Ramachandra Naidu College of Nursing

Sankaran Koil.

ANNEXURE – VII

ENGLISH EDITING CERTIFICATE

ENGLISH EDITING CERTIFICATE

I hereby certify that, I have edited the work of Mrs. C.Muthumari, II Year M.Sc. (Nursing) student of Sara Nursing College, Dharapuram who is under dissertation work on "A Study to evaluate the effectiveness OP betadine sitz bath versus Neem extract sitz bath on episiotomy wound healing among post natal mothers in selected hospital Dindugal District."

Date: 31.07.14

Signature

A.N. RAJENDRAN,M.A.,M.Ed.,
Head, Dep. of English
Atomic Energy Higher Secondary School
Kalpakkam-603 102.

ANNEXURE – VII

PHOTOS